[Registered at the General Post Office, Melbourne, for transmission by Post as a Newspaper.]

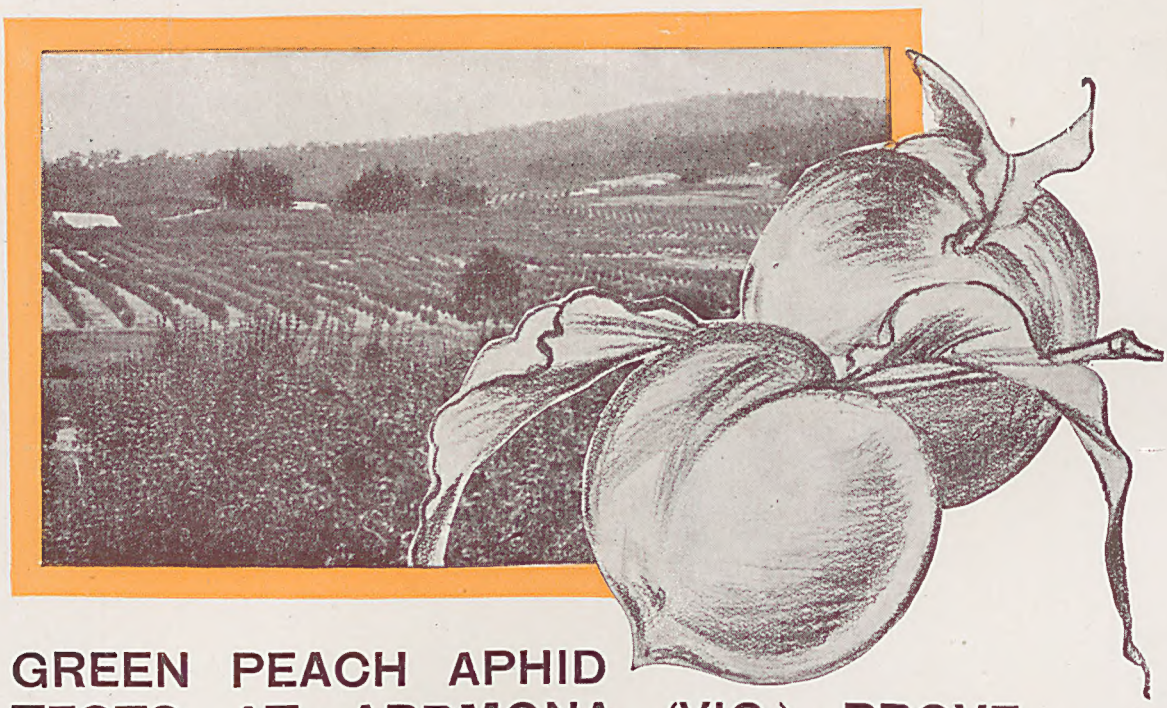
The JOURNAL OF THE DEPARTMENT of AGRICULTURE

VICTORIA - AUSTRALIA

VOL. XXXII PART 5

NATIONAL MUSEUM OF VICTORIA

MAY, 1934 Price 3d.



GREEN PEACH APHID TESTS AT ARDMONA (VIC.) PROVE I.C.I. WINTER WASH 100% EFFECTIVE

Recent tests at Ardmona (Vic.) proved I.C.I. Winter Wash 100% effective against Green Peach Aphid. It was definitely established that the basis of any successful spraying programme was a good tar-oil Winter wash. Only a single application of I.C.I. Winter Wash was made, and the results showed a maximum destruction. I.C.I. Winter Wash is a sure protection against crop-failure and means better fruit . . . . bigger profits.

Extract from Agricultural Journal, Victoria; Vol. XXXI., Part 6, July, 1933

"The most outstanding feature of the trials is the remarkable egg-killing efficiency of the tar-distillate wash, and the consequent high degree of control that it exercises over the aphid." A complete summary of this report is published in pamphlet form. Write us for a copy, together with full information, and you will see how I.C.I. Winter Wash will insure your crop against failure.

IMPERIAL CHEMICAL INDUSTRIES

OF AUSTRALIA & NEW ZEALAND LTD.

173 Queen Street, MELBOURNE

Sole Victorian Agents:

277 Clarence Street, SYDNEY

RAMSAY & TREGANOWAN LTD.

469 Latrobe Street - - - - Melbourne, Victoria

NATIONAL MUSEUM OF VICTORIA

Contents.

MAY, 1934.

		PAGE
Preparation for Sowing the Crop of 1934	*H. C. Forster, M.Agr.Sc.*	213
Burnley Egg-laying Competition—Results of 1933-34 Test	*W. C. Rugg*	216
Pig Rearing—the Open-air Method	*A. J. Gill*	224
Potato Culture	*J. T. Ramsay*	228
Orchard and Garden Notes	*E. E. Pescott, F.L.S.*	239
Registration of Stallions—Fourteenth Annual Report	*R. N. Johnstone, B.V.Sc.*	240
Stallion Parades—Time-table, 1934		243
Stallion Register, 1933-34		248
Professional Papers—		
The Green Peach Aphid in relation to the Peach in Victoria and the Measures Investigated for its Control.—Part III.	*Keighley M. Ward, B.Agr.Sc.*	258

Issued under the direction of the Hon. J. Allan, M.L.A., Minister of Agriculture.

COPYRIGHT PROVISIONS AND SUBSCRIPTION RATES.

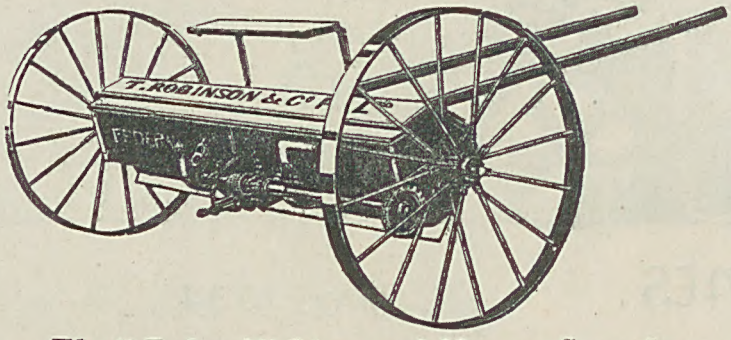
The Articles in the Journal of the Department of Agriculture of Victoria are protected by the provisions of the Copyright Act. Proprietors of newspapers wishing to republish any matter are at liberty to do so, *provided the Journal and author are both acknowledged.*

The Journal is issued monthly. The subscription, which is payable in advance and includes postage, is 3s. per annum for the Commonwealth and New Zealand, and 5s. for the United Kingdom and Foreign Countries. Single copy, Threepence. Subscriptions should be forwarded to the Director of Agriculture, Melbourne.

POSITIVE FORCE FEED

DISTRIBUTORS

make the "Federal" superior to all others



The "Federal" Lime and Manure Spreader

T. ROBINSON & CO PTY. LTD.

Showrooms: 536 Bourke St., Melbourne

SPOTSWOOD, W.14, Vic. **BURWOOD, N.S.W.**

The sowing is a positive force feed by star distributors. Can be operated by a boy and drawn by one horse.

Made in three sizes: 6-ft., 9-ft., and 12-ft. widths, the latter two sizes being fitted with double drive.

For hilly, rough conditions use T. Robinson & Co.'s Broadcaster distributor.

PASTURE HARROWS

Prior to the application of Fertilizer, the harrowing of pasture lands is strongly recommended. One or two horse sets. Priced right.

INDEX TO ADVERTISEMENTS

FRONT SECTION

Cameron, Sutherland & Seward Pty. Ltd. ... viii

Dunlop Perdriau Rubber Co. Ltd. ... vi

Gippsland & Northern Co-operative Coy. Ltd. (Machinery) v

Imperial Chemical Industries of Australasia Ltd. cover

International Harvester Coy. of Australia Ltd. vii

Leggo, Victor, & Farmers Ltd. viii

H. V. McKay Massey Harris Pty. Ltd. ... iii

Robinson, T., & Coy. Pty. Ltd. ii

Trewhella Bros. Pty. Ltd. v

Vacuum Oil Co. Pty. Ltd. iv

BACK SECTION

Australian Cement Ltd. ix

C.O.R. Power Kerosene x

Friesian Calves for Sale xiv

Lysaght Bros. & Coy. Ltd. xiii

Red Poll Calves for Sale ... ...cover

Rylands Bros. (Aust.) Ltd. xii

Shell Coy. of Australia Ltd. ix

State Savings Bank xii

Texaco Tractor Oil xi

Victorian Dried Fruits Board ... ...cover

Victorian Railways xi

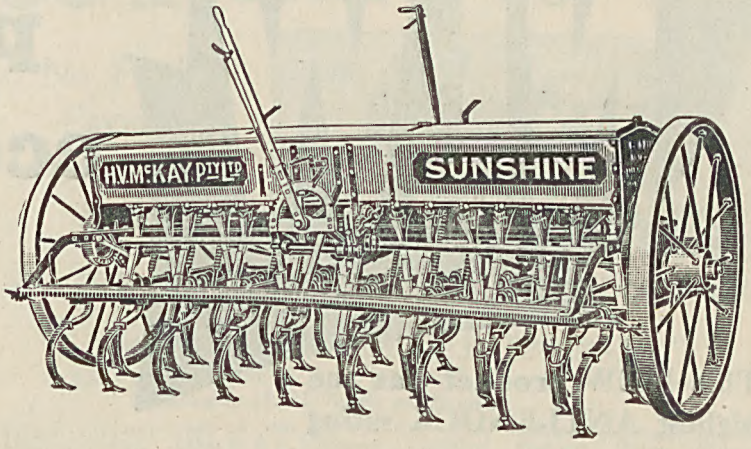
1884 Fifty Years of Service 1934
To Australian Farmers

SUNSHINE FARM IMPLEMENTS

Sunshine's Jubilee.—It is just fifty years since Hugh Victor McKay invented and successfully built the first Sunshine Harvester. To-day the works at Sunshine manufacture a complete range of modern labour-saving implements for orchard, vineyard, and farm.

THE SUNTYNE DRILL

Pays for Itself Again and Again



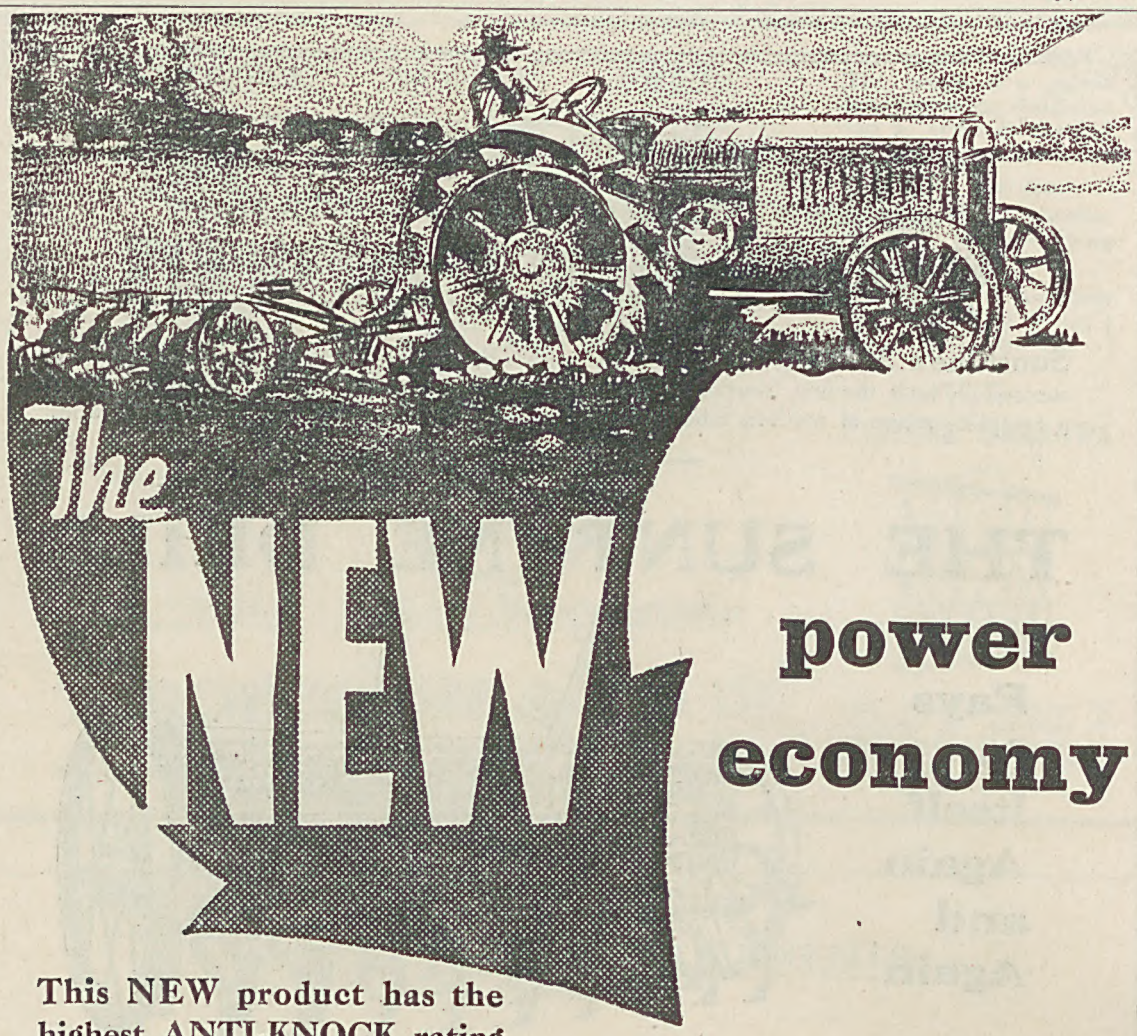
Quicker germination and a good start are assured when the Suntyne sows the seed.

Two implements in one—and fitted with light trailing harrows, it cultivates, sows, and harrows—in that order—and leaves a nice level mulch—*all in the one operation.* You owe it to yourself to investigate how you can save money, labour, wear and tear, and time by using a Suntyne Drill.

Ask the local Agent, or write direct for illustrated and descriptive catalogue, prices, and easy terms.

H. V. McKAY MASSEY HARRIS
PTY. LTD.

Sunshine Harvester Works, Sunshine, W.20



This NEW product has the highest ANTI-KNOCK rating of all power kerosenes you can buy. IT WILL NOT KNOCK! More power is available to you in VOCO than you have ever had before.
You'll plough more for less cost when you use this EXTRA-powerful fuel.

The best partner for Power and Protection

Mobiloil

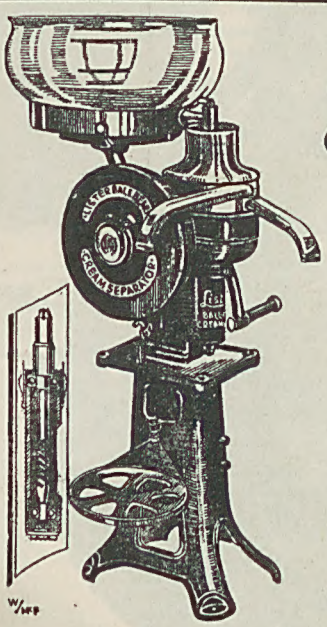
YOUR ENGINE'S BEST INSURANCE

VOCO POWER KEROSENE

VACUUM OIL COY. PTY. LTD.

Is a simple arrangement that multiplies the power at the handle 260 times—handy to use, easy to move, quickly rigged, and works in roughest country. Standard equipment pulls trees and stumps from 1½ acres without changing anchor. Many other time and labour-saving features. Catalogue with pleasure.

TREWHELLA BROS. PTY. LTD., TRENTHAM



£1 Deposit - - - -
Secures For You

No Further Payments Until The Spring

THE Lister BRITISH BUILT BALL BEARING CREAM SEPARATORS

The Only Separator with STAINLESS STEEL BOWL and exclusive type ball-bearing Spindle.

"The World's Best Separator, and it's **BRITISH**, too!"

Sizes: Ball-Bearing, 35, 50, 70, 90, 110, and 135 gallons, for hand or power.
Plain-Bearing, 15, 22, 30, 40, and 50 gallons.

Liberal allowance made on your old machine. Free illustrated Catalogue No. L.1 gladly forwarded. Other G. & N. Machinery: "Bamford" Engines; "Eclipse" Milkers; Whakatane Harrows, &c.

GIPPSLAND & NORTHERN CO-OP. CO. LTD.
Machinery Department - - - 607-613 Collins Street, Melbourne, C.1
Good Agents Wanted in Districts Where Not Represented W.-McF.

This Journal
offers exceptional advantages
for Advertising

Circulates throughout the **Country Districts** of **Victoria** and amongst **Farmers** of the **Commonwealth**, reaching also country professional men, tradesmen, schoolmasters, teachers, and the like.

Exceptionally satisfactory results have followed the advertising of Stud Stock in this Journal.

Rates on application to the Official Canvasser
DEPARTMENT OF AGRICULTURE, MELBOURNE, C.2

Prepare FOR THE WET SLIPPERY ROADS

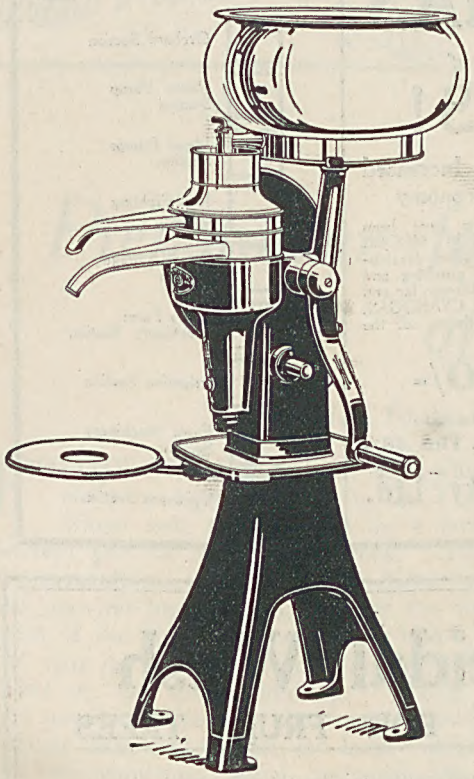
Many times during this Winter, the power of your tyres to grip and hold despite slippery surfaces may prevent serious accident. Your wisest, safest plan is to discard worn-smooth covers and fit new Dunlops now. The deep, helical pattern of the Dunlop "Gold Seal" tread grips the road like one helical gear grips another—*and grips its full width.*

In addition to year-round safety, Dunlop offers longer mileage and a unique SILENT RUNNING. And your local dealer quotes the lowest prices ever known!

DUNLOP *Gold Seal*

SAFE and SILENT

McCORMICK-DEERING



Ball-Bearing CREAM SEPARATOR

The Last Word in Cream Separators

The McCormick-Deering Ball-Bearing Cream Separator is made in six sizes, with capacities of 35, 50, 75, 90, 120 and 150 Imperial gallons. Hand, belted, or electric models can be supplied.

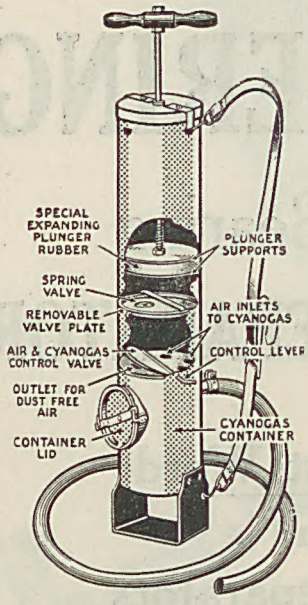
If your cream separator is losing money by wasting butterfat at the skimmilk spout, it is high time to invest in a new McCormick-Deering Ball-Bearing Cream Separator—the world's closest-skimming cream separator. Ball-bearings at all high-speed points make the McCormick-Deering the world's easiest-running cream separator. You cannot afford to be without this modern cream separator, for it is easily the most outstanding cream separator of modern times. Call and see your McCormick-Deering local agent about it at the first opportunity, or write us for illustrated catalogue.

International Harvester Company of Australia Pty. Ltd.

543-555 Bourke Street, Melbourne, C.1

McCORMICK-DEERING

The Introduction of the **Buzacott 1934 Model Foot Pump Blower**



means that the application of

CYANOGAS

for the destruction of

RABBITS!

Can now be carried out with Increased Efficiency and Greater Economy

Several New and Important Features have been incorporated in the "BUZACOTT" 1934 MODEL CYANOGAS FOOT PUMP BLOWER. These developments, which have undergone the most gruelling and convincing tests, make the 1934 Model Blower far and away the most efficient means of applying CYANOGAS, and the most economical method of wiping out the rabbit pest.

The Cost of the 1934 Model is only 50/-

CYANOGAS PRICES (f.o.r. Melbourne):
5 lb. Tins 11/3 - 25 lb. Tins 48/-

Victorian Distributors:
CAMERON, SUTHERLAND & SEWARD Pty. Ltd.
Riverside Avenue, South Melbourne, Vic., S.C.4

Now Available FREE
Our 1934 Sectional
CATALOGUE
may be had by return of post

Mark the Section you need [X]

- ☐ Orchard Section
- ☐ Power Pump Section
- ☐ Hand Pumps Section
- ☐ Fire Fighting Section
- ☐ Petrol Storage Section
- ☐ Dairy Farm Machinery Section
- ☐ Irrigation Section
- ☐ Farm Machinery Section
- ☐ Cyanogas Section

"VALLO" Ovicidal Wash

THE PERFECT WINTER WASH FOR FRUIT TREES

During recent years, much consideration has been given to Tar Distillates as a Winter Wash for fruit trees, and as a result of extensive research and careful experiments, **"VALLO" OVICIDAL WASH** is put forward as a means of control of Aphids and other destructive insects. It is made on a neutral Tar Oil basis.
During Autumn, the eggs of Aphids and other destructive insects are laid on the shoots and branches of the tree, frequently many eggs being laid together, and they are usually well hidden from view. These eggs hatch out during early Spring and cause untold damage to leaves and young shoots and also distorted growth and loss of vigour to the trees.

The greatest contributing cause of unsuccessful control of these pests is in the fact that spraying is frequently carried out when the mischief has already been done.

"VALLO" OVICIDAL WASH is to be used dur ng the dormant period of the tree, and, if used in strict accordance with directions, and properly applied, will give 100% immunity from Aphid infection.

A considerable saving is effected by using **"VALLO" OVICIDAL WASH** for the reason that it will obviate the necessity of Spring Spraying for Aphis, thereby saving a considerable amount of time and labour.

Recommended dilutions determined after tests in many Fruit-growing areas:

APPLES AND PEARS: Use 4 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying may be carried out with entire safety up to the end of August, but is not recommended for use at any later period.

PEACHES, NECTARINES, CHERRIES, PLUMS, AND OTHER STONE FRUITS: 3 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying should be carried out during June and July.

Package: Barrels, 40 gallons; Drums, 5 gallons
Cases: 4 x 2, gallon tins; 8 x 1, gallon tins

Manufacturers: VICTOR LEGGO & FARMERS Ltd.
222 QUEEN STREET, MELBOURNE

NATIONAL MUSEUM OF VICTORIA

The Journal of the DEPARTMENT of AGRICULTURE of VICTORIA

Preparation for Sowing the Crop of 1934

By H. C. Forster, M.Agr.Sc., Cereal Research Officer

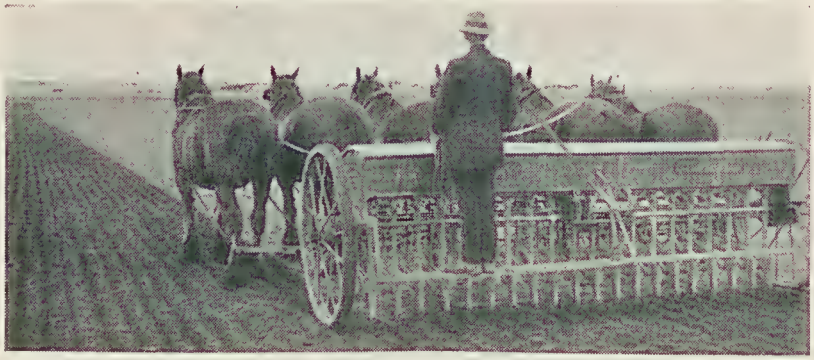
FOLLOWING on the useful rains which fell early in April, farmers in the Victorian wheat belt are entering on a most important part of their year's work. Although the rainfall received during the latter part of the year has important bearing on the development of the plants, the conditions under which the crop is sown have an equally important effect on the yields obtained. While it is not possible to modify the former factor, the farmer can control to a large extent the various conditions which influence the foundations upon which the crop is built. For this reason the grower should plan his seeding compaign carefully, so that the conditions of the soil and his methods of seeding are as economically perfect as it is practicable to make them.

It is the purpose of this article to discuss some of the more important problems which occur during the seeding season, so that farmers may check up on the different factors.

The season so far has been a favorable one for the wheat-farmer. The summer rains of early January encouraged weed growth on fallow and stubble, and provided good feed for the sheep through the summer months. The drier conditions which followed in February and March, however, enabled farmers to clean up their fallows and to get a good burn on their stubbles. Unlike 1933, when the break in the weather did not arrive until the second week of May, the useful falls of early April enabled farmers to commence the autumn working of the fallowed and stubble areas, and encouraged rapid growth in oats which had already been sown for early grazing purposes.

Because of their particular economic position, the great majority of Victorian wheat-growers are forced to regard wheat as their main cash crop since, even with the present low prices, it is impossible for them to replace that cereal to any large extent with another crop. The control of wheat prices is out of the hands of the grower, and the only means available to him to increase the net return from his crop is to reduce the cost of production. In most cases high yields materially lower costs per unit of production, so that it becomes even more necessary than ever before that growers should adopt the best methods during the coming season.

Experimental tests and practical experience have shown that there are two main factors of prime importance to the wheat crop—fallowing and the use of superphosphate. Unlike oats, which are better suited to the rougher conditions of stubble-ploughed areas, wheat crops respond to the better conditions of fallowed areas. Farmers of the northern wheat belt would be well advised, therefore, to sow their wheat only on fallow, and reserve their stubble areas for oats.



Seeding the Crop.

The increases which follow applications of comparatively small quantities of superphosphate have been an outstanding feature of agricultural development in Australia, and even at the present time, very few farmers would contemplate sowing wheat on fallow without this manure. The question of the optimum quantity, however, is the point about which opinions differ, since the class of soil and climate, and the cost of both the wheat and climate, and the cost of both the wheat and the manure, all play an important part. When prices of wheat fall, the most profitable amount of superphosphate likewise falls, but departmental trials have shown that even with present prices the most profitable responses are obtained with amounts of 40 to 60 lb. per acre in the Mallee, increasing up to 1 cwt. and 1½ cwt. per acre in the more southern districts. Growers whose financial considerations do not permit of their purchasing ample quantities of superphosphate may be forced to use smaller amounts than these, but care should be taken to see that at least some superphosphate is applied to the whole of the crop.

In considering the best type of cultivation to use on the fallows, farmers should be careful not to work their implements too deeply, and so destroy the firm seed-bed which has been forming underneath the surface mulch of the fallows. Generally speaking, tyned implements with points wide enough to kill the weeds are preferable for the autumn cultivation, as they can be better regulated with regard to depth of working, and will assist in the consolidation of the seed-bed. However, where the surface soil has set down hard over the summer, or where weeds are a serious problem, disc implements may be necessary.

A word with regard to rate of seeding during the coming season may not be out of place, particularly for the farmers in the drier areas. Experiments have shown that while very little increase in yield can be expected with rates of seeding above 50 lb. per acre for the Mallee, there is a distinct danger of burning off in the dry years with the heavier rates of seeding. In other words, when moisture is scarce, high numbers of plants may be a distinct disadvantage. The importance of this knowledge is apparent when we remember that most of the seed produced in the Mallee and parts of the northern areas last year was inclined to be small, so that in sowing his normal weight of seed per acre, the farmer will be actually sowing a much larger number of grains per acre than usual. Casual observers may not realize the variation that this factor may cause, but counts on graded seed to be used in the Mallee this year showed that a seeding of 50 lb. will supply 690,000 seeds per acre compared with a normal number of 550,000. This corresponds to a seeding of nine seeds per foot of drill row compared with the normal number of seven seeds per foot. Farmers should therefore reduce their normal rate of seeding if their seed is on the small side. In the example quoted, the necessary reduction would be approximately 10 lb. per acre.

Recognition is not always given to the importance that time of seeding plays in producing good crops. Early seeding is of particular importance in the Mallee where the growth period of the crop is short, and in certain other parts of the State where the soil often becomes cold and waterlogged in the winter. In some seasons such as that of last year, a late break in the weather prevents an early commencement of the cultivation of the ground, and it is therefore impossible to sow early without running the risk of dirty crops. After this season's early rain, however, weed seeds germinated rapidly and have been killed, and sowing therefore can proceed with safety.

The general question of the varieties that will be sown this year doubtless already has been decided, and only minor alterations are possible. Where large areas have to be drilled, it is impossible to get the whole crop sown under ideal conditions, and that area which is sown last generally suffers. Trials have shown

Working with the "Combine".

that varieties with a short maturing period will give the highest yields on these late-sown areas, and the wise farmer therefore plans to use more than one variety of wheat, sowing the long-maturing varieties, i.e., the late wheats, such as Ghurka and Free Gallipoli first and finishing with the short maturing or early varieties such as Ranee and Rajah.

With regard to disease prevention, it should not be necessary to stress here the value of the dry copper carbonate pickle in preventing ball smut of wheat. A fact which is not so well known is that the same pickle is of definite value in controlling smut in oats, and should be used in districts where this disease is bad. With regard to flag smut, no such direct method of seed treatment is available. Areas which are known to be infected are best sown with varieties of wheat such as Ghurka or Nabawa, which are resistant to the disease, or, where possible, a rotation including oats should be practised. An effective burn of the stubbles, mid-season sowing, and the use of superphosphate also assist in reducing the incidence of the disease. Take-all and foot rot diseases are also best controlled by the cultural methods just described.

As a result of the prevailing low prices for wheat, many farmers have been considering the advisability of materially increasing the area sown to oats during the coming season. This appears to be a desirable practice for a number of reasons. As stocks of hay have been seriously depleted during the past year, it will be necessary to replenish hay reserves as soon as possible. Further, as a result of the very favorable prices for sheep and wool during the past year, farmers generally increased their numbers of sheep, and oats will be necessary for providing grazing and for fodder reserves in case a dry season should be experienced. Oats are important also as a means of maintaining soil fertility and in preventing the development of the diseases of flag smut and take-all, which tend to increase in land subject to the rotation of fallow, wheat, fallow, wheat.

Oat crops may be utilized either for grazing, for hay or grain, or for combinations of both these uses. Although the practice of sowing oats for the sole purpose of grazing is one that has not been customary in the past, the method has distinct possibilities at the present time, especially in the Wimmera and Mallee where natural pastures do not provide a large bulk of feed. For this purpose farmers would do well to consider in future sowing one portion early with a rapid-growing variety, such as Mulga, to provide autumn and early winter feed, and to sow the remainder later with Algerian, which gives its best grazing in the late winter and early spring. In this way, continuous grazing would be available from the time the first lambs were dropped until the last were fattened and sold.

The more usual method of grazing the crop once, and then allowing it to mature in the normal manner for hay or grain, sometimes requires careful handling. If the sheep are allowed on the crop too late in the season, the developing head is often eaten or damaged, and the final cut of hay may be materially reduced. It is unsatisfactory to depend solely on removing the stock before a certain date, say, the beginning of September, as the maturity of a crop depends largely on the date of seeding and the variety. The safer method is to actually examine the plants by splitting

[*Continued on page 223.*

Burnley Egg-laying Competition

Results of 1933-34 Test

By W. C. Rugg, Chief Poultry Expert

Mr. M. G. Leech's Light Sussex Team.

THE twenty-third Egg-laying Competition for fowls, and the sixth for ducks, was commenced on 1st April, 1933, and terminated on 2nd March, 1934, a period of 48 weeks.

The entries received in one section for fowls, and also for ducks, were not so numerous as usual. In section A, 70 pens for the accommodation of teams of six birds are provided, but only 63 entries were received. This is a rare occurrence; usually the pens are over-applied for. In section B for individual birds, 236 pens are provided, and as more than this number of entries were received a ballot became necessary. There is accommodation for 62 ducks, but only 30 were entered.

There are two probable reasons for the reduced number of entries. One is, the difficult time most poultrymen have suffered, due mainly to the low prices received for their products; the second is the increasing number of egg-laying competitions.

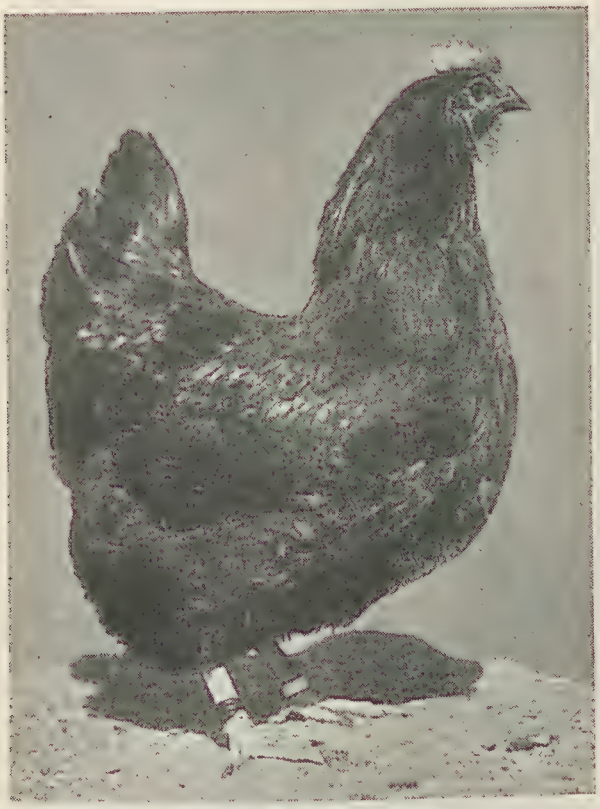
There is no doubt that the distribution of stock bred from birds that have competed at Burnley has set a standard and raised the quality of birds throughout Victoria. The rules governing the competition have always been strict, but the one applied first in 1925 which fixed a standard weight of eggs (2 oz. or over), has done more than anything else towards bettering the quality of the egg-producing strains, and increasing the size of the eggs they lay. This improvement made it possible for exporters last season to obtain full supplies of eggs of suitable weights for shipment to Great Britain.

It is gratifying to know that the shipments were a record for Victoria, and amounted to 5,708,160 dozen eggs in shell, valued at well over £300,000. The export of such a large quantity helped to stabilize the local market, and gave employment to a number of box-makers, graders, packers, carters, and labourers at a very critical time.

Comments on the 1933-34 Competition.

At the competition just concluded, it was noted that the general improvement in type and stamina was well maintained; but there is still room for considerable improvement in some breeders' birds. Although there were no very high scores many put up some good performances. The only official record broken was that of a Brown Leghorn. The previous record was held by a bird owned by Mr. F. W. Gough, which laid 234 eggs in twelve months at the 1926-7 competition. In the 1933-34 competition a Brown Leghorn owned by Mr. D. Granter laid 257 in 48 weeks. She was kept at Burnley till the full twelve months had been completed, and the total number of eggs laid by her during the year was 272.

For the first time for some years, White Leghorns (in both the teams test and the single test) fed on dry mash laid a higher number of first grade eggs than those fed under the more popular wet mash system. In 1914-15 a team of White Leghorns fed on dry mash and owned by Mr. W. N. O'Mullane, laid 1,699 eggs in twelve months, and this is still the Burnley official record for a team of White Leghorns. In 1923-24, Mr. J. Ryan's hen in the single test section laid 330 in twelve months on dry mash, and still holds the Burnley official record for a single White Leghorn on dry mash. In 1931-2, a bird bred by Mr.



Mrs. H. N. Read's Australorp.

J. L. Edgcumbe, fed on wet mash, laid 337 eggs—all first grade—in twelve months.

In Class 1 for White Leghorns, wet mash, the winning team was owned by Mr. Wallington, Ruburina Poultry Farm, Greensborough. The team laid 1,264 first-grade eggs. It was a nice even team, and should produce good stock when bred from. Mr. Wallington deserves his success, as he has been a competitor on many occasions, and his birds have usually put up good scores.

The second prize was won by Mr. Bastin, of Caulfield, whose birds laid 1,236 first-grade eggs. This team laid very well in the early part of the competition, and won the winter test, when they laid 382 eggs in the first four months.

One of the best performances at the competition was that of a hen in the team of Mr. T. A. Mentiplay; she laid 261 first-grade eggs in the 48 weeks. Mr. Mentiplay was rather unfortunate, as one of his team died after laying only 48 eggs; the other five birds laid well, and finished fourth in their class.

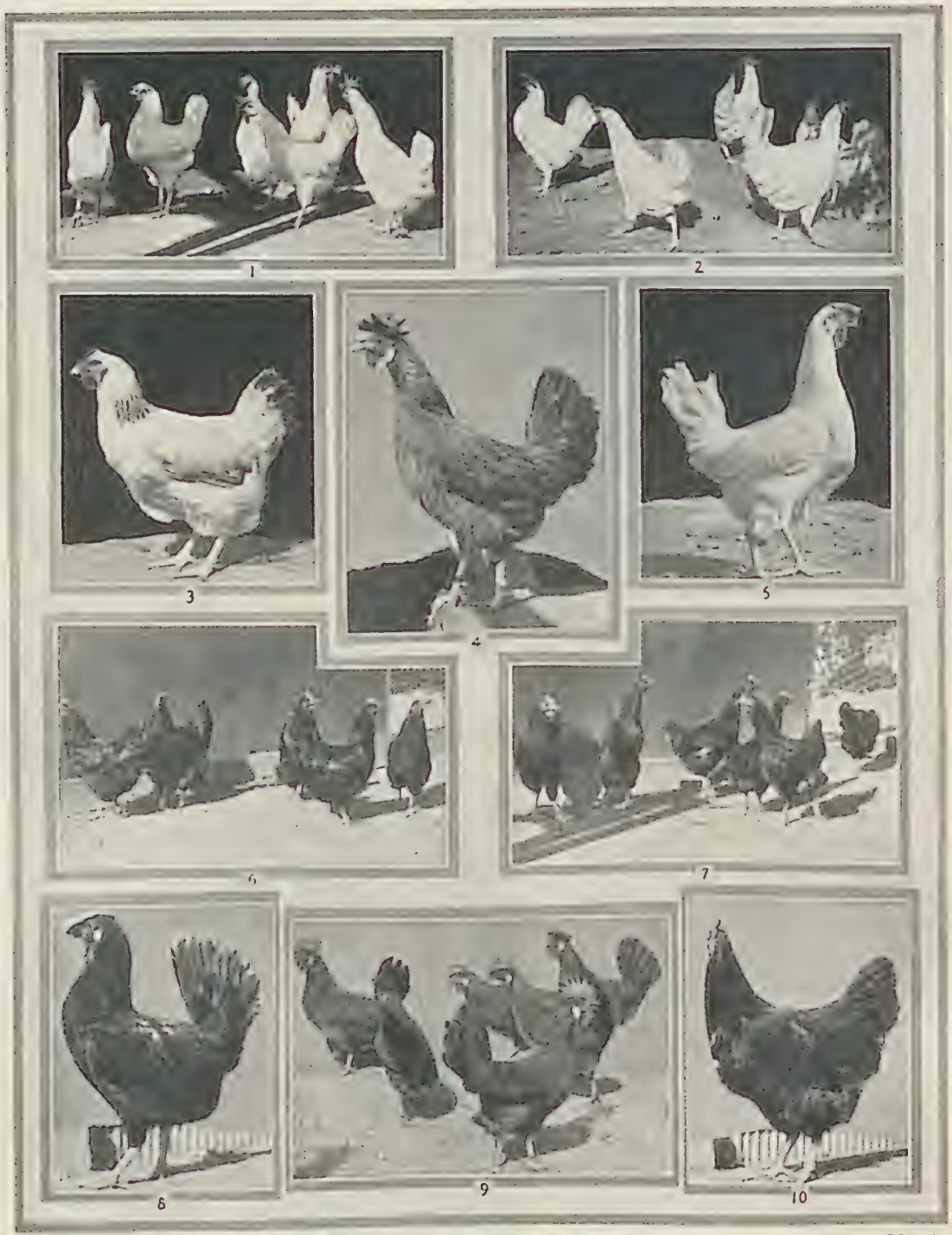
In Class 2, White Leghorns, dry mash, the winning team was owned by Mr. W. E. Molson, another old competitor, who had not previously been successful. This team was very even; five of the birds laid over 200 eggs each; the sixth laid 196; the total was 1,265 first grade.

The winning team in Class 4—Australorps—was bred by Mr. S. Young, of Ivanhoe. It laid 1,345 first-grade eggs—the greatest number laid by any team during the competition. This is the second year in succession that Mr. Young has won in this class.

In Class 6 for all heavy breeds other than Australorps or Rhode Islands, first position was taken by a team of Light Sussex with 698 eggs. These birds were bred by Mr. M. G. Leech; they were very young, and did not commence to lay for some time after the competition started.

The second prize was awarded to Mr. S. Barker of Woodend; his team produced 1,229. It laid well in the early months of the competition, and won the winter test, but slowed down towards the end of the test.

Mr. G. McDonnell's White Leghorn (Class 1—Wet Mash).



1.—Mr. W. E. Molson's White Leghorns. 2.—Ruburina Poultry Farm's White Leghorns. 3.—Mr. G. J. White's Light Sussex. 4.—Mr. D. Granter's Brown Leghorn. 5.—Mr. G. McDonnell's White Leghorn. 6.—Enidville Stud Farm's Australorps. 7.—Mr. R. Farrin Webb's Rhode Island Reds 8.—Sorrento Poultry Farm's Black Leghorn. 9.—Mr. D. Granter's Brown Leghorns. 10.—Mr. W. Drinkwater's Rhode Island Red.

The first prize in Class 2—White Leghorns, dry mash—was also won by a bird owned by Mr. G. McDonnell; she laid 279 eggs. I believe this is the first occasion on which the winners in both the wet and dry mash sections were bred by the same owner.

Cost of Feeding.

The number of fowls in the competition at its beginning was 614, but 47 died. The total number of days these latter birds collectively were in the pens was 9,376, which is equal to approximately 28 birds having been there for the full 48 weeks. Therefore, the total number of birds in the competition for the whole period may be regarded as 595, and this is the figure that has been used when working out averages, &c. The total number of eggs laid, including those under weight, was 110,140 an average per bird of 185.109 for the 48 weeks.

The price realized for the eggs averaged a fraction over 11¼d. per dozen. The market value of the eggs averaged 14s. 6½d. per bird, and the cost of food averaged 6s. 5d. per bird —a fraction over 1½d. per week; thus, the profit over cost of food for the 48 weeks averaged 8s. 1½d. per bird.

The different kinds and quantities of the food fed to the birds during the currency of the competition was as follows:—Wheat, 22,995 lb.; oats, 5,089 lb.; maize, 6,188 lb.; wheat pollard, 16,411 lb.; oat pollard, 367 lb.; bran, 12,180 lb.; maize meal, 362 lb.; dried butter-milk, 790 lb.; meat, 3,257 lb.; onions, 1,056 lb.; salt, 105 lb.; grit, 3,892 lb.; charcoal, 384 lb.

Appended is a list of the winners of prizes, Champion and Government certificates.

SECTION A.—TEAMS OF SIX BIRDS, TRAP NESTED.

Pen No.	Name and Address.	Total Eggs.	Under-weight.	First Grade Eggs.
Class 1.—White Leghorns—Wet Mash.				
1ST PRIZE—CHAMPION CERTIFICATE; ALSO 3RD PRIZE—BURNLEY SASH.				
13	"Ruburina" (V. D. Wallington), Nell-street, Greensborough	1,298	34	1,264
2ND PRIZE—GOVERNMENT CERTIFICATE.				
26	W. Bastin, 20 Ellington-street, South Caulfield, S.E.8	1,245	9	1,236

Section A.—Class 1.—White Leghorns—*continued.*

Pen No.	Name and Address.	Total Eggs.	Under-weight.	First Grade Eggs.
3RD PRIZE—GOVERNMENT CERTIFICATE.				
8	A. W. Gahan, 62 Northernhay-street, Reservoir, N.19	1,207	7	1,200
Class 2.—White Leghorns—Dry Mash.				
1ST PRIZE—CHAMPION CERTIFICATE; ALSO 2ND PRIZE—BURNLEY SASH.				
33	W. E. Molson, 188 Surrey-road, Blackburn	1,280	15	1,265
2ND PRIZE—GOVERNMENT CERTIFICATE.				
36	J. H. Wernli, Alpina Poultry Farm, Wilson-street, Cheltenham, S.22	1,206	..	1,206
Class 4.—Australorps (Australian Black Orpingtons)—Wet Mash.				
1ST PRIZE, CHAMPION CERTIFICATE; ALSO BURNLEY CHAMPION SASH.				
61	Enidville Stud Farm (S. Young), 74 St. Elmo-road, Ivanhoe, N.21	1,410	65	1,345
2ND PRIZE—GOVERNMENT CERTIFICATE.				
60	S. E. R. Barker, Woodend	1,247	18	1,229
Class 5.—Rhode Islands—Wet Mash.				
1ST PRIZE—CHAMPION CERTIFICATE.				
42	R. Farrin Webb, "Rafa," Traralgon (Rhode Island Reds)	1,099	7	1,092

SECTION B.—INDIVIDUAL BIRDS, SINGLE TEST.

Pen No.	Name and Address.	Total Eggs.	Under-weight.	First Grade Eggs.
Class 1.—White Leghorns—Wet Mash.				
1ST PRIZE—CHAMPION CERTIFICATE; ALSO 3RD PRIZE—BURNLEY SASH.				
12	G. McDonnell, 46 Childers-street, Kew, E.4	272	..	272
2ND PRIZE—GOVERNMENT CERTIFICATE.				
20	F. Robson, 16 Nelson-street, North Wonthaggi	272	1	271
3RD PRIZE—GOVERNMENT CERTIFICATE.				
36	T. L. Eastaugh, Pt. Nepean-road, Highett, S.21	264	..	264
Class 2.—White Leghorns—Dry Mash.				
1ST PRIZE—CHAMPION CERTIFICATE; ALSO BURNLEY CHAMPION SASH.				
204	G. McDonnell, 46 Childers-street, Kew, E.4	280	1	279
2ND PRIZE—GOVERNMENT CERTIFICATE.				
231	Windarra Poultry Farm (F. C. Mason), Follett-road, Cheltenham, S.22	266	..	266

Section B.—Class 2.—White Leghorns—*continued.*

Pen No.	Name and Address	Total Eggs.	Under-weight.	First Grade Eggs.
	3rd Prize—Government Certificate.			
222	Mrs. G. M. Jones, 36 Johnston-street, Newport, W.15	259	..	259

Class 4.—All Light Breeds other than White Leghorns and Brown Leghorns—Wet Mash.

	1st Prize—Champion Certificate.			
104	Sorrento Poultry Farm, Campbell-road, Portsea (Black Leghorn)	226	..	226

Class 5.—Australorps (Australian Black Orpingtons)—Wet Mash.

	1st Prize—Champion Certificate; also 2nd Prize—Burnley Sash.			
142	Mrs. H. N. Read, Wonga Park, via Heidelberg	273	..	273
	2nd Prize—Government Certificate.			
130	A. May, Hewlett-road, Tally Ho	258	..	258
	3rd Prize—Government Certificate.			
107	Mrs. M. Wekwerth, 35 Maling-road, Canterbury, E.7	241	..	241

Class 6.—Rhode Islands—Wet Mash.

	1st Prize—Champion Certificate.			
163	W. Drinkwater, 6 Kennedy-street, Fairfield Park, N.20 (Rhode Island Red)	243	7	236
	2nd Prize—Government Certificate.			
183	R. Mason, 7 Austin-street, street, Balwyn, E.8 (Rose Comb Rhode Island White)	228	..	228

SECTION A.—FOR THE GREATEST NUMBER OF FIRST GRADE EGGS LAID BY INDIVIDUAL BIRDS IN EACH CLASS OF SECTION A.

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	Class 1.—White Leghorns—Wet Mash.				
	1st Prize—Champion Certificate.				
24	T. A. Mentiplay, Somerville	143	261	..	261
	2nd Prize—Government Certificate.				
24	T. A. Mentiplay, Somerville	142	247	..	247
	Equal 3rd Prize—Government Certificate.				
13	"Ruburina" (V. D. Wallington), Nell-street, Greensborough	78	246	2	244

Section A.—Class 1.—White Leghorns—*continued.*

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	Equal 3rd Prize—Government Certificate.				
27	O. M. Taylor, "Kumalong," Point Nepean-road, Carrum	162	244	..	244

Class 2.—White Leghorns—Dry Mash.

	1st Prize—Champion Certificate.				
36	J. H. Wernli, Alpina Poultry Farm, Wilson-street, Cheltenham, S.22	213	243	..	243
	2nd Prize—Government Certificate.				
32	A. J. Hill, Sunraysia Poultry Farm, Greensborough	192	230	..	230
	3rd Prize—Government Certificate.				
35	H. Mitchell, "Hillsley," Eltham-road, Rosanna	205	228	..	228

Class 3.—All Light Breeds other than White Leghorns—Wet Mash.

	1st Prize—Champion Certificate.				
38	D. Granter, 163 Martin-street, Gardenvale, S.4 (Brown Leghorn)	226	260	3	257

Class 4.—Australorps (Australian Black Orpingtons)—Wet Mash.

	1st Prize—Champion Certificate.				
59	H. J. Hulme, Milawa, via Wangaratta	349	263	3	260
	2nd Prize—Government Certificate.				
60	S. E. R. Barker, Woodend	360	269	13	256
	3rd Prize—Government Certificate.				
69	T. J. Mannion, "Milangil," Camperdown	410	252	..	252

Class 5.—Rhode Islands—Wet Mash.

	1st Prize—Champion Certificate.				
45	R. R. Christie, St. Elmo Poultry Farm, Bentleigh (Rhode Island Red)	268	237	..	237
	2nd Prize—Government Certificate.				
42	R. Farrin - Webb, "Rafa," Traralgon (Rhode Island Red)	249	233	4	229
	Equal 3rd Prize—Government Certificate.				
41	W. Tedstone, White Horse-road, Balwyn, E.8 (Rhode Island White)	241	206	2	204

Section A.—Class 5.—Rhode Islands—*continued.*

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	EQUAL 3RD PRIZE—GOVERNMENT CERTIFICATE.				
44	J. Wrathall, 12 Dickens-street, Glen Iris (Rhode Island Red)	263	220	16	204

SECTION A.—FIRST CLASS CERTIFICATES OF MERIT TO INDIVIDUAL BIRDS IN CLASSES 1, 2, AND 4, WHICH LAID 220 FIRST GRADE EGGS, AND IN CLASSES 3, 5, AND 6, WHICH LAID 200 FIRST GRADE EGGS.

Pen No.	Name and Address.	Bird No.	First Grade Eggs.
	Class 1.—White Leghorns—Wet Mash.		
13	"Ruburina" (V. D. Wallington), Nell-street, Greensborough	76	226
	,, ,, ,,	77	242
26	W. Bastin, 20 Ellington-street, South Caulfield, S.E.8	151	221
	,, ,, ,,	155	225
8	A. W. Gahan, 62 Northernhay-street, Reservoir, N.19	44	234
25	C. Storey, Wyoming Poultry Farm, 34 Glencairn-avenue, Moreland	145	228
22	Sorrento Poultry Farm, Campbell-road, Portsea	132	220
5	Corryong Poultry Farm (A. L. Thomas), Edward-street, Greensborough	28	222
11	W. E. Molson, 188 Surrey-road, Blackburn	63	224
1	H. I. Jolly, Box 29, Trafalgar ..	5	225
18	Anstis Bros., View-road, Spring Vale	105	223
15	Hicks Bros., Riverview Poultry Farm, Maribyrnong, W.3	87	234
6	Dr. A. N. Dickson, "Mittagong," Canterbury-road, Bayswater	33	229
	Class 2.—White Leghorns—Dry Mash.		
33	W. E. Molson, 188 Surrey-road, Blackburn	194	225
36	J. H. Wernli, Alpina Poultry Farm, Wilson-street, Cheltenham, S.22	214	225
30	J. L. Edgcumbe, "Nilgiris," Yan Yean-road, Plenty	175	226
	,, ,, ,,	176	220
	Class 4.—Australorps (Australian Black Orpingtons)—Wet Mash.		
61	Enidville Stud Farm (S. Young), 74 St. Elmo-road, Ivanhoe, N.21	361	240
	,, ,, ,,	364	239
	,, ,, ,,	365	231
	,, ,, ,,	366	229
60	S. E. R. Barker, Woodend ..	357	229
	,, ,, ..	359	241

Section A.—Class 4.—Australorps—*continued.*

Pen No.	Name and Address.	Bird No.	First Grade Eggs.
58	W. Rodger, White-street, Longwarry	343	237
	,, ,, ,,	348	223
65	J. A. Naylor, 858 Heidelberg-road, Alphington, N.20	389	237
59	H. J. Hulme, Milawa, via Wangaratta	350	221
	,, ,, ,,	351	238
	,, ,, ,,	352	228
56	W. Cullen, Werribee Poultry Farm, Werribee	331	224
69	T. J. Mannion, "Milangil," Camperdown	409	236
54	R. G. Wilkins, Ringwood-street, Ringwood	323	247
	,, ,, ,,	324	245
70	O. Pearse, "Etker," Box 33, Donald	416	225
63	Mrs. S. Kelly, "Shipley," Pascoe Vale-road, Pascoe Vale, W.8	377	225
67	G. J. White, Allwell Stud Poultry Farm, Watson's-road, Glen Waverley	398	237
68	W. Coutts, 10 Lowther-street, Alphington, N.20	406	232
	Class 5.—Rhode Islands—Wet Mash.		
42	R. Farrin-Webb, "Rafa," Traralgon	252	203

SECTION B.—FIRST CLASS CERTIFICATES OF MERIT TO HENS IN CLASSES 1, 2, AND 5, WHICH LAID 240 FIRST GRADE EGGS, AND IN CLASSES 3, 4, 6, AND 7, WHICH LAID 220 FIRST GRADE EGGS.

Pen No.	Name and Address.	First Grade Eggs.
	Class 1.—White Leghorns—Wet Mash.	
80	F. S. Tuckfield, 19 York-road, Glen Iris, S.E.6	261
40	Fernhill Poultry Farm (H. C. Siede), Bay-road, Cheltenham, S.22	261
78	P. C. Thomson, 142 Fyans-street, South Geelong	259
5	S. Iddles, Devon-street, Cheltenham, S.22	257
1	Milne and Bradshaw, Lily-street, Geelong West	257
63	C. C. Phillips, 37 King Edward-avenue, Sunshine, W.20	256
7	H. I. Jolly, Box 29, Trafalgar ..	256
10	H. C. Lancaster, 228 Lyons-street, Ballarat South	254
11	G. McDonnell, 46 Childers-street, Kew, E.4	253
66	C. J. Phillips, 37 King Edward-avenue, Sunshine, W.20	252
82	Warilda Poultry Farm (T. R. Ward), 81 Point Nepean-road, Elsternwick, S.4	252

Section B.—Class 1.—White Leghorns—*continued.*

Pen No.	Name and Address.	First Grade Eggs.
13	P. N. Tilley, Glenburn-road, Mitcham ..	250
69	Sandhills Poultry Farm (J. J. Kay), Scotsburn-avenue, Clarinda	249
84	G. Dwyer, Greythorn-road, Balwyn, E.9	247
15	N. Meyers, 48 Queen's-avenue, Carnegie, S.E.9	246
49	Mrs. O. M. Lett, 13 Coronation-street, Brighton, S.6	245
50	,, ,, ,, ,,	244
65	C. J. Phillips, 37 King Edward-avenue, Sunshine, W.20	244
37	J. L. Edgcumbe, "Nilgiris," Yan Yean-road, Plenty	243
58	A. May, Hewlett-road, Tally Ho ..	242
	Class 2.—White Leghorns—Dry Mash.	
220	Mrs. W. J. Halliday, 371 Geelong-road, West Footscray, W.12	257
202	H. I. Jolly, Box 29, Trafalgar ..	256
219	Mrs. W. J. Halliday, 371 Geelong-road, West Footscray, W. 12	253
228	W. G. Thompson, 4 Edna-grove, East Coburg, N.13	249
	Class 5.—Australorps (Australian Black Orpingtons)—Wet Mash.	
127	H. R. McChesney, Hereford-road, Mt. Evelyn	240

Mr. R. A. Johnson's Indian Runner Duck.

DUCKS.

In section A for teams of six, a team of Khaki-Campbells, owned by Mr. H. H. Lloyd, of Frankston, put up a fine score of 1,622 eggs, all first grade. The best duck in this team laid 317 eggs.

The second prize also went to a team of Khaki-Campbells, owned by the Broadleigh Egg Farm, which laid 1,577 eggs.

The third prize was won by a team of Fawn Indian Runners, owned by Mr. R. A. Johnson, of Werribee; they laid 1,453 eggs. One duck in this team put up the highest score at the competition—320 eggs in the 48 weeks.

It is regretted that the entries in the duck sections were so few, and unless breeders give this section better support in the future it is probable that the section will be discontinued.

The number of ducks in the competition at its beginning was 30. One of them died.

The total number of eggs laid, including those underweight, was 7,442—an average per bird of 256.621 for the 48 weeks. The price realized for eggs averaged a fraction under 9¾d. per dozen. The market value of eggs was 17s. 2½d. per bird, and the cost of food averaged 9s. 3¾d. per bird, which is a fraction over 2¼d. per week; thus the profit over cost of food for the 48 weeks averaged 7s. 10¾d. per bird.

Hereunder is given a list of the different kinds and quantities of the food fed to the ducks during the currency of the competition:—Grain, 93 lb.; wheat pollard, 3,078 lb.; oat pollard, 31 lb.; bran, 1,986 lb., maize meal, 64 lb.; dried butter-milk, 52 lb.; meat, 240 lb.; salt, 7 lb.; grit, 210 lb.

BURNLEY DUCK EGG-LAYING COMPETITION, 1933-34.

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	Section A.—Teams of Six Birds—Single Tested.				
	1st Prize—Champion Certificate; also Burnley Champion Sash.				
13-18	H. H. Lloyd, "Cranleigh," Box 10, Frankston (Khaki Campbells)	..	1,622	..	1,622

Section A.—Team of Six Birds—*continued.*

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	2ND PRIZE—GOVERNMENT CERTIFICATE; ALSO 2ND PRIZE—BURNLEY SASH.				
1–6	Broadleigh Egg Farm (F. Hansen), Heatherton - road, Springvale (Khaki Campbells)	..	1,607	30	1,577
	3RD PRIZE—GOVERNMENT CERTIFICATE.				
19–24	R. A. Johnson, Chirnside-avenue, Werribee (Fawn Indian Runners)	..	1,455	2	1,453

Section A.—Individual Birds.

	1ST PRIZE—CHAMPION CERTIFICATE; ALSO BURNLEY CHAMPION SASH.				
19–24	R. A. Johnson, Chirnside-avenue, Werribee (Fawn Indian Runner)	22	321	1	320
	2ND PRIZE—GOVERNMENT CERTIFICATE.				
13–18	H. H. Lloyd, "Cranleigh," Box 10, Frankston (Khaki Campbell)	16	317	..	317
	3RD PRIZE—GOVERNMENT CERTIFICATE.				
1–6	Broadleigh Egg Farm (F. Hansen), Heatherton - road, Springvale (Khaki Campbell)	3	308	9	299

Section B.—Individual Birds—Single Test.

	1ST PRIZE—CHAMPION CERTIFICATE; ALSO BURNLEY CHAMPION SASH.				
28	H. H. Lloyd, "Cranleigh," Box 10, Frankston (Khaki Campbell)	..	292	..	292

Section B.—Individual Birds—*continued.*

Pen No.	Name and Address.	Bird No.	Total Eggs.	Under-weight.	First Grade Eggs.
	2ND PRIZE—GOVERNMENT CERTIFICATE; ALSO 2ND PRIZE—BURNLEY SASH.				
25	Broadleigh Egg Farm (F. Hansen), Heatherton - road, Springvale (Khaki Campbell)	..	291	1	290
	3RD PRIZE—GOVERNMENT CERTIFICATE.				
26	Broadleigh Egg Farm (F. Hansen), Heatherton - road, Springvale (Khaki Campbell)	..	265	9	256

Mr. H. H. Lloyd's Khaki-Campbell Duck.

Preparation for Sowing the Crop (*Continued from page* 215).

the stem with a pen knife, when the small developing head can be plainly seen. Once this head is eaten by the sheep, no further growth takes place in that particular stem, and the plant must attempt to produce the grain from the smaller weaker side stems.

Apart from these major considerations, there remain then the hundred and one details which must be attended to before the seeding season. Implements and drills must be examined to see that everything is working correctly, tractors in particular must be thoroughly overhauled—the seed and superphosphate checked over. Time is the essence of the contract once sowing is commenced, and any preparation or organization which will facilitate rapid sowing and prevent delays must be regarded as a most important preparation for seeding.

Pig-Rearing—the Open-air Method

By A. J. Gill, Senior Herd Tester.

THE two essentials for success in pig-farming are breeding and feeding. One must have pigs of even type and correct shape, and they must be given such feed as will make them capable of producing the kind of bacon that the consumer desires.

The breeding of pigs of the type in demand is the more important factor, and means the difference between profit and loss. The writer has seen two pigs of about the same weight offered for sale, yet £1 more was paid for one than for the other. As a matter of fact, the lighter animal brought the bigger price, and simply because it was of the conformation desired by the butcher.

In Victoria we speak of pork and bacon pigs. The short dumpy pig being regarded as the most suitable for pork, and the longer, leaner pig as the bacon type. In Ireland the same type of pig is bred for either pork or bacon. This is as it should be, as a pig too fat for bacon is too fat for pork. The short dumpy pig is not suitable for either pork or bacon.

At present the buyer of bacon pigs is looking for a pig with a long deep middle, light shoulders, and good hams; first in importance being the middle. The hair should be fine and fairly abundant, the skin free from wrinkles, and smooth. The hair and skin give a fair indication of the fineness and quality of the flesh. The pig with coarse hair and wrinkly skin will probably yield a coarse dark flesh. Hairless skin usually denotes too much lard. A pig should show fine bone; coarse bone indicates coarseness throughout. An animal with heavy thick shoulders should be avoided. The shoulder must be fine, joining on to the side smoothly, and must be free from lumpiness. The top line should run smoothly from ears to tail, with a slight arch; the side deep, with level underline; thick at flank. The pig should not taper from shoulders to hams. He should be as wide as, and preferably wider there than at the shoulder.

White pigs are preferred. Coloured and black ones show a certain amount of what is termed "seedy cut." The use of a pure-bred white boar will mean a white litter.

The pig recognized all over the world as the best bacon producer is the Large White. At the pork and bacon competitions at the Royal Agricultural Show last year, the pure animals appeared to be superior in both sections to the crossbreds. The fact that the Large White has been accepted as the ideal bacon pig does not mean that all Large Whites are good. Careful and continued culling and selection are needed, and the culling should be drastic. Those showing short bodies, signs of wrinkly skin, coarse heavy bone, coarse hair, heavy shoulders, and heavy jowls, should be culled.

There are two methods of keeping pigs—in the sty, and in the open air. For the past decade the Department of Agriculture has been advocating the latter method. Running pigs on pasture has proved much more economical than keeping them in sties. Not only is there a saving in labour, but the pigs are healthier and less subject to infestation by worms, and there are fewer losses after farrowing. In sties, especially dirty sties, there is sometimes loss; frequently from 20 to 50 per cent. of the young pigs die after farrowing, and a considerable percentage after weaning. In trials carried out by Mr. R. T. Archer (formerly of the Department of Agriculture) at the farm of the Australian Pig Breeders Proprietary Limited at Seymour, the average litter per sow, with the open-air method, was over nine, and the average number reared was over eight, the loss being approximately 1 per cent., and the percentage of loss after weaning less than 1 per cent.

Fattening paddock shelter with feeder combined.

A Farrowing Shelter.

Figures 1 and 2 show suggested plans for two pig farms, Figure 1 being suitable for an oblong area of approximately 68 acres, while Figure 2 is adapted for a rectangular area of about 72 acres. The plans could, of course, be modified to suit areas other than those mentioned. The number of sows that could be carried on such a farm would depend on the fertility of the soil, and the nature of the pasture, but, under average conditions, it should be possible to carry from 100 to 140.

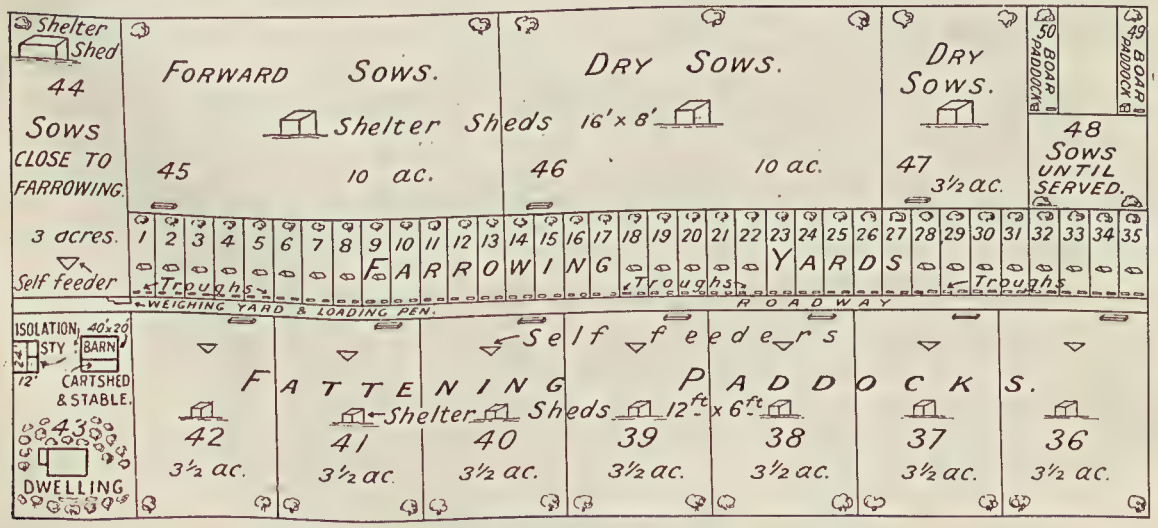


Fig. 1.—Suggested subdivision for a long narrow area.

From this number between 1,600 and 2,000 pigs should be marketed annually as porkers or baconers.

The only permanent outbuildings required are the grain and cart shed, isolation pens, and the residence. The farrowing paddocks shown on each plan are 3 chains long by 1 chain wide, though both size and shape could be altered if desirable or necessary. Access to the farrowing paddocks is by means of the race shown. Fattening paddocks, which adjoin the farrowing paddocks, are from 3 to 4 acres in area,

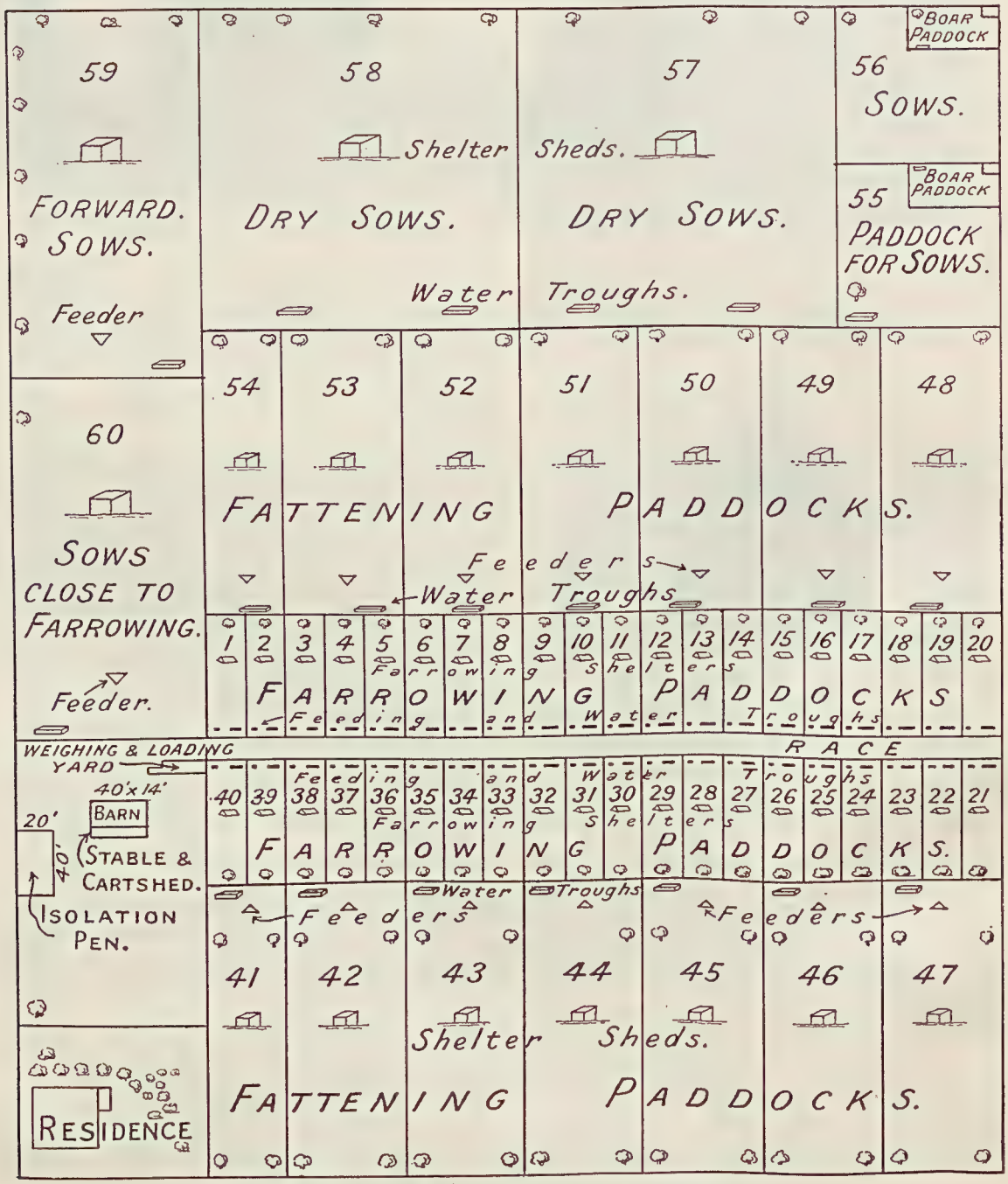


Fig. 2.—Plan of suggested layout for pig farm.

though these may be made smaller if desired. Larger paddocks, about 10 acres, are reserved for dry sows when they prove in pig, while forward sows and sows close to farrowing are kept in separate paddocks.

Shelters are provided in each paddock. The farrowing shelter shown in the accompanying illustration is made of hardwood and galvanized iron sheets. A convenient size for these shelters is 8 feet x 8 feet, x 5 feet high. These can be constructed at a cost of from 25s. to 30s. each. A floor is unnecessary, except under very wet conditions. The two rails which are placed 3 feet apart and 9 inches from the ground prevent the young pigs from being crushed. The shelter is open in front but, as a sow always turns her head to the open when farrowing, the young pigs are born under shelter. These structures can be readily moved by two men.

Dry sows' shelter with automatic feeder at back.

Shelters in the fattening paddocks should be about 12 feet x 6 feet x 5 feet high in front and 4 feet at the back. The combined shelter and feeder illustrated is used on the farm of Messrs. R. Thomson and Sons, at Geelong, where from 900 to 1,000 pigs are kept on the open-air system, monthly sales from the farm averaging more than 100. The use of the automatic feeder has much to recommend it. There is a saving of labour, while pushing and jostling that occur at the troughs, with consequent waste of food, are reduced to a minimum. Again, if pigs can feed whenever they wish they will eat slowly, and their food will be more thoroughly digested than is the case when it is bolted, while the weak pigs will get as much as the stronger. Where large packing cases can be obtained cheaply the feeders can be made at little cost.

Shelter sheds for the dry sows should be about 16 feet x 8 feet, and the paddocks should be provided with water troughs and ample shade.

After being served the sows remain in one of the paddocks adjoining the boar paddocks for three weeks. If in pig they are then moved to the larger paddocks reserved for dry sows. If the pasture in these paddocks is good no feeding will be required until within a fortnight of farrowing, when they are shifted into the paddock for forward sows, and a week before farrowing they are brought into the paddock close to the farrowing pens. In both these paddocks the sows are fed a balanced ration, consisting of gristed grain and a little meat meal. The amount fed would depend on the condition of the sows.

Within a day or two of farrowing the sows are moved into the farrowing paddocks, and remain there for eight weeks after farrowing. During this time the sow requires an average of 1 lb. of grain mixture for each pig in the litter, plus an extra 3 lb.—thus, for example, a sow with a litter of ten pigs would require 13 lb. of grain mixture per day. When three weeks old the young pigs should be provided with a feeding trough in a creep, and fed a mixture of gristed grain and 12 per cent. meat meal.

At eight weeks, when the young pigs are ready for weaning, the sow and litter are moved to the fattening paddocks, the sow being removed two days later to the paddock adjoining that of the boars to await service. While in the fattening paddock the pigs should be weighed monthly. Any short dumpy pigs should be culled and sold as porkers, for they will not be saleable as baconers. Each sow should be ear-marked for identification purposes, and a record kept of her progeny. The useful life of a sow extends to six years of age, and usually after that age it is advisable to dispose of her as a back-fatter.

Potato Growing in Victoria

No 10.—Diseases and Pests

By J. T. Ramsay, Potato Expert.

Previous articles of this series, which appeared in the March, April, May, July, and December, 1933, and January, February, March and April, 1934, issues of the Journal, dealt with the condition and selection of seed, seed storage methods, change of seed, plant food requirements, the use of artificial fertilizers, preparations for planting, planting, inter-cultivation, harvesting and grading.

THE main sources of damage to the potato crop are fungus and bacterial diseases and insect pests. In order that growers may be able to identify these and know how to combat them, a brief description of the more common diseases and pests is appended.

Specimen of Potato Top, showing Aerial Tubers as the result of affection by Rhizoctonia.

As a general means of disease control, apart from chemical or other treatments, careful attention should be given to the selection of seed from prolific and healthy plants, the greening of the seed by proper storage methods, rotational cropping, and clean cultivation.

Rhizoctonia solani (*Collar Stem Rot*).

Rhizoctonia or collar stem rot is one of the most common causes of damage to the crop, and affects the plants in a number of ways. If this fungus attacks the plant severely enough in the early stages of growth, it will completely kill the plant before any tuber formation has taken place. This is the most severe form of the disease. When the disease develops at a later stage of growth, examination of the plants at the ground surface line will show discoloration and partial rotting of the stems at that point (hence the common name, collar stem rot). This rotting interferes with the normal development of the tubers, and

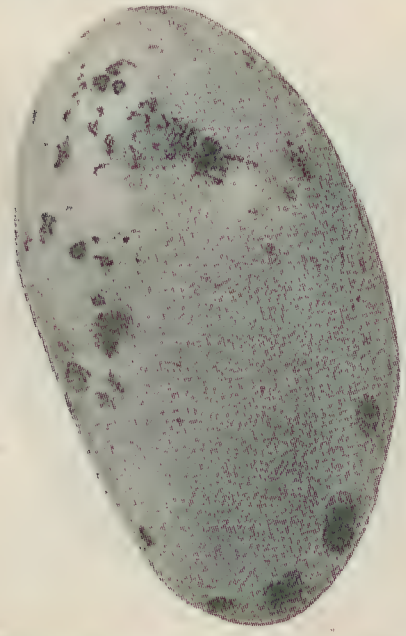
has the effect of producing an abnormal growth of top, with the formation occasionally of aerial tubers in the axils of the leaves and the production of a great number of small and useless tubers underneath the stalk.

Another effect of the disease is the formation on the surface of the tubers of scab, which, while not seriously affecting the potatoes, so far as their use for consumption is concerned, detracts considerably from their value because of the unsightliness of the scab and the wastage of the damaged portion.

A further symptom of Rhizoctonia is the splitting of the tubers as though they had been slashed with a hoe or a knife while growing, but this form of damage is not so common as the scabbing.

Tuber affected with Collar Stem Rot (Rhizoctonia solani).

Control Measure.—Although this disease is very prevalent and causes considerable damage, it can be largely controlled at comparatively small cost. The control recommended is the dipping of all potatoes intended for use or seed in a solution of formalin. For potatoes that have not sprouted, the solution should consist of 1 lb. formalin to 20 gallons of water; the required period of immersion is 1½ hours. When dipping is deferred till the potatoes have sprouted, the strength of the solution should be reduced to 1 lb. to 30 gallons, as the higher strength burns the sprouts, and although these will come again they will not be so strong as the first sprouting. In potato-growing it is important wherever possible not to impair the first sprouts. Corrosive sublimate at the strength of 1 in 1,000 is an effective dip, but is not recommended on account of its poisonous nature. Its danger in this direction lies in the fact that it is practically odorless, colourless, and tasteless. Whenever dipping is done care should be taken to have the treated potatoes properly drained after being taken from the solution.



Typical black spots of Rhizoctonia on tuber.

Phytophthora Infestans (*Irish Blight*).

Though capable under certain conditions of reducing a crop of potatoes in a very short space of time to a useless putrid mass, this fungus is not the serious menace in Victoria which it was once believed to be. In the history of potato-growing in this State there has been only one outbreak of magnitude, viz., that in the season 1910-11, when the damage was extensive. It has been estimated that the injury done in that year by blight was anything up to 75 per cent. or 80 per cent. of the crop. The disease is, of course, to be found every year in some corner or other,

Potato Leaf affected with Irish Blight.

but the normal weather conditions in the average growing period of the crop in Victoria are against its development in epidemic form. The fungus thrives best at moderate temperatures with high humidity. One of the best protections against blight in Victoria is the high temperatures and dry hot winds which generally prevail when the plants are at the most susceptible stage of their growth, viz., at flowering time.

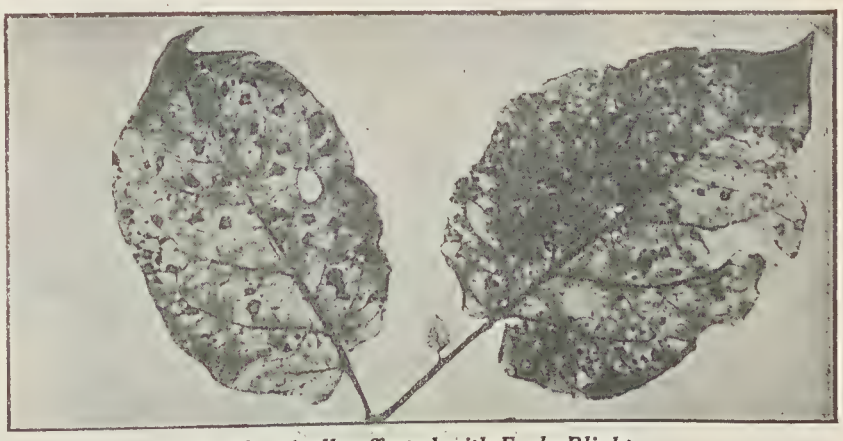
The earlier symptoms of the disease are discolorations and breaking down of the leaf structure accompanied by mould on the under side of the leaf. Close, muggy weather favours its rapid development, and then the whole of the tops of the plants quickly collapse, and the spores are carried from these down to the tubers. An advanced stage of disease is always accompanied by an offensive odor, which, once experienced, can never be mistaken.

Control Measures.—Dipping seed in formalin as for Rhizoctonia has a controlling effect, although it only reaches the disease on the surface of the tubers. Heating seed to a temperature of about 105° F. for four hours kills the disease, but this method is not practicable on most farms. Spraying is the only feasible method of control, but it is costly, and in face of the fact already stated, that the disease is of rare occurrence in epidemic form, spraying systematically each season is not justified from an economic point of view. In other words, regarding the experience of Irish blight damage over a long number of years in Victoria, it pays growers to take the risk of not spraying rather than to adopt an expensive, regular course of spraying each season. Should spraying be decided on, the materials recommended are copper sulphate and washing soda—8 lb. copper sulphate and 10 lb. washing soda to 40 gallons of water. To get a proper solution, it is necessary to dissolve the copper sulphate first; this will be facilitated if the ground form is used with hot water, as the crystal form is slow to dissolve. The washing soda should then be dissolved and added to the copper solution, and the mixture is then ready. It is essential that it be kept constantly agitated when in use.

The spraying of the crop certainly may be justified where special lots of seed are

Potato with dense white mould of Irish Blight fungus. Shortly afterwards, it was overrun with a luxuriant white mould of Fusarium.

being grown, but it should be noted that this treatment is purely *preventive* and not *curative*. This applies to all disease controls. For that reason spraying must always be done prior to the disease making its appearance.

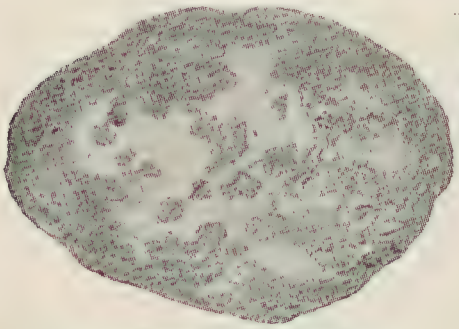


Leaf typically affected with Early Blight.

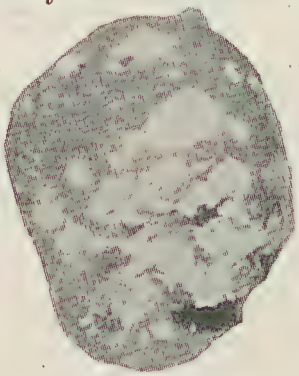
Alternaria Solani (*Early Blight*).

The common name of this fungus disease is given, because it generally makes its appearance in the leaves of the crop as soon as the young tubers commence to form. It does no damage to the tubers themselves, though in certain seasons it reduces the yield considerably owing to the damaged leaves being unable to function fully. The disease is easily recognized by the spotting of the leaves as shown in the illustration.

Control.—The best control is selection of seed from sound, good bearing plants, as the trouble makes headway chiefly on plants of low vigour.



Mechanical Scab due to injury.



Scab due to Oospora Scabies.

Scab (*Various*).

Scab on potatoes may be due to quite a number of causes, such as fungus pests, bacteria, mechanical injury from any cause, the larvae of insects, or the insects themselves. Rhizoctonia as a cause of this blemish has already been dealt with.

Oospora Scabies (*Common Scab*).

This scab-producing fungus is not so common as Rhizoctonia, but does quite considerable damage annually. The damage done is confined to the tubers.

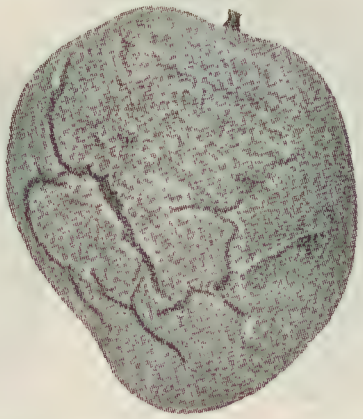
Control.—Formalin treatment, 1 lb. to 20 gallons for 1½ hours as for Rhizoctonia, is recommended as a control.

Spondylocladium atro-virens (*Dry Scab or Silver Scurf*).

A scab-producing fungus of minor importance. It is best to guard against it by using clean seed. Probably the formalin treatment would tend to control it.

Synchytrium endobioticum (*Black Scab or Wart*).

A virulent fungus disease not present in Victoria, but which causes extensive damage in Great Britain and Europe. So serious is it regarded there that a notification of its appearance must be made to the authorities. No control has been found for it. Fortunately, certain varieties in these countries seem to be immune from its attack.

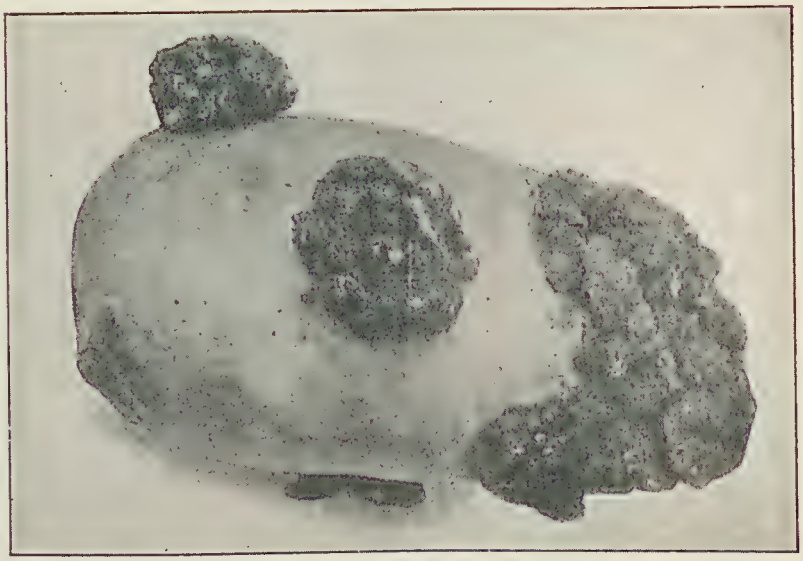


Spondylocladium atro-virens (*Dry Scab*).

Spongospora subterranea (*Corky or Powdery Scab*).

This fungus affects the tubers only by causing what is commonly termed a scab on the surface. To a certain degree it is controllable by the formalin treatment, but is practically impossible of eradication. The disease can be carried over from season to season either on the tubers or in the soil. Happily it is not known to be in Victoria at present.

According to authorities this fungus does most damage to crops grown in districts with high rainfalls, and as this condition applies to a very big percentage of the Victorian potato-growing country, the disease must be regarded as a dangerous one.



Black Scab or Wart.

Control.—Selection of clean seed and the use of the formalin treatment.

Fusarium Solani (*Brown Ring*).

This disease is recognizable on cutting the affected tubers, for the so-called brown ring is then shown. It may appear only at the heel end of the tubers, but in severe cases will show in any cross-section. An early symptom of the disease is the wilting and drying off of the foliage.

Brown Fleck or Sprain.

The cause of brown fleck is unknown. It affects only the inside of the tuber, the outside of which remains apparently perfectly clean and free from blemish. If an affected tuber be cut, brown specks or flecks will be found dotted through and disfiguring it. It is believed by some authorities to be caused

Corky or Powdery Scab.

Fusarium or Brown Ring.

Brown Fleck or Sprain.

by extreme variations in weather during the growing period, and to be therefore purely physiological.

Bacteriosis, Wet Rot (*Bacillus solanacearum*).

This bacterial trouble, which is variously known (in different districts) by the common names of wet rot, sore eye, and jammy eye, is common to most parts of Victoria, but is most damaging on low-lying country. The first symptoms are a sudden limpness of the tops as though they had collapsed under extreme heat. Discoloration of the leaves follows, first to yellow, then to brown, and finally the tops of affected plants shrivel up. The stems become streaky as the disease travels downwards and ultimately affects the tubers. The first symptom on the tubers is a discharge from the eyes. Finally the whole tuber becomes a dirty slimy mass.

Though a large percentage of a crop may be affected the disease does not take the crop on a face, as is the case with a severe attack of Irish blight. Sound plants can always be found alongside and amongst those affected.

Later Stage of Wet Rot Showing affected Tuber.

Early Stage of Wet Rot.

Control.—Use only seed from free areas. Clean cultivation and thorough intercultivation, especially during dry weather.

No chemical treatment can be recommended for the control of bacterial diseases.

Black Leg (*Bacillus phythopthorus*).

Though widespread in its occurrence, black leg does not do extensive damage. As in the case of wet rot, it is spread chiefly by the use of infected seed, so that an obvious control is seed from a crop free from the trouble.

For the lessening of many diseases, and this applies particularly to bacterial diseases, the proper storage of seed, so that it may be thoroughly greened, is a considerable check. Not only does the greening arrest the trouble to some extent, but the fact that properly stored seed can be planted without the sprouts being broken enables the grower to discriminate between strong-budded vigorous seed and that of a weak character, due to disease or degeneration, or both. If inferior seed be discarded the ensuing crop will at least have the chance of starting the season with full vigour.

Plant affected with Black Leg.

Control.—Selection of seed and proper storage. An affected plant rarely produces anything but a few small tubers, so that seed selection would largely eliminate affected seed.

Thready Eye or Spindle Disease.

Although attributed to various sources, the cause of this trouble is not positively known. Certain soils, chiefly those poorly drained, produce tubers which, though apparently perfectly sound, show, when they are sprouted, great weakness in the buds. These sprouts, in fact, are so puny and thin that they suggest the common titles of thready eye or spindle growth.

Control.—No chemical control can be given. The only treatment suggested is correct storage, so that the affected seed may be discarded when planting is being done.

Potato Grub (*Lita solanella*).

Potato-growers throughout the Commonwealth have for many years suffered very heavy losses from the damage done by the grub of the potato tuber moth. The actual damage is effected by the larvae of the moth attacking the tubers by penetrating the skin and tunnelling their way through the flesh, thereby rendering the potatoes unfit for consumption, and where the injury is severe, unfit for seed. The tubers may be damaged either before or after harvest.

The moth is particularly active in hot, dry seasons; in wet seasons no trouble is occasioned.

A most prolific breeder, under favorable weather conditions, it is capable of increasing to vast numbers in a very short period. A practical demonstration of this is the experience of the present season (1933-34), which has been warmer than usual, with the result that the activities of the moth and grub have amounted in certain districts to almost a plague.

Control.—Many efforts have been made to combat the ravages of this pest. Spraying the crop with solutions for poisoning either the moth or the grub is neither practical nor economical.

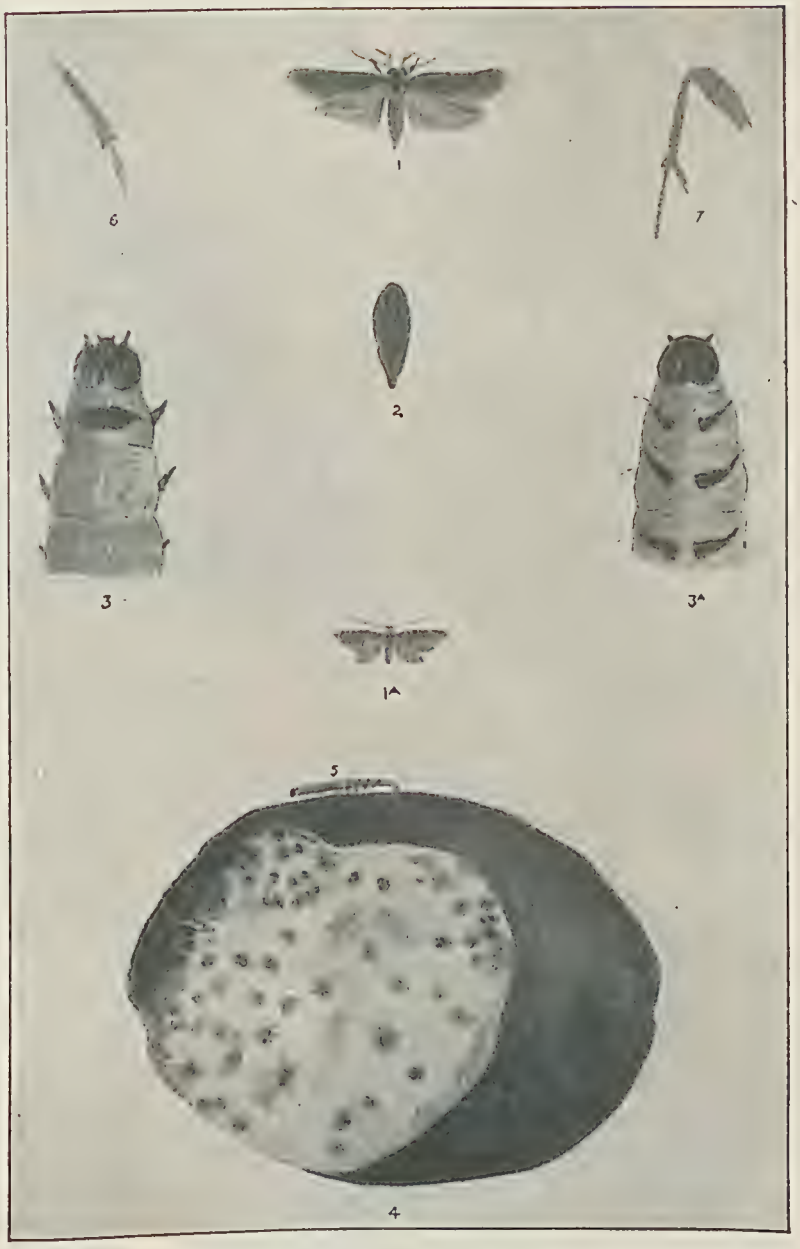
It has been demonstrated that by keeping the soil in which crops is grown well tilled, so that a fine mulch can be moulded over the tubers, the grub can be prevented from getting access to them. Where cultivation is poor the tubers in any soil are placed directly at the mercy of the grub. Loose, sandy soils give the best protection, but unless this class of soil is kept well moulded over the rows of the crop it is liable to be washed down by rains, or blown down by the wind, to such a degree

Thready Eye or Spindle Disease.

that the tubers nearest the surface are exposed to the air and the grub. Soils of a loamy or clayey character, if not well cultivated, are liable to become baked or caked on the surface by the action of rain. Subsequent drying by the sun tends to crack the surface, making tiny fissures by way of which the grub can reach the tubers.

Good cultivation and tilling are a great protection to the crop from grub damage, but the limit of this method of protection is reached when harvesting commences. Immediately the tubers are exposed, either by hand or mechanical digger, the moth, in seasons favorable to it, lays its eggs on the tubers. Within a few days the eggs are hatched, and the larvae actively engaged in the potatoes. Growers are only too well aware of the rapidity and extensiveness of the work of this grub, and will agree that bagging and removal can hardly be done quickly enough to beat the attack of the moth.

In 1922, the Department made a number of tests with various preparations to prevent grub damage, and the only one found to be effective was the tuberol treatment. Tuberol is an



Potato Moth (*Lita Solanella*).

1. Moth. Magnified.
1A. Moth. Natural size.
2. Pupa. Magnified.
3. Head and first three segments of larva. Upper side. Magnified.
3A. Head and first three segments of larva. Under side. Magnified.
4. Potato sliced to show effects of attack by larvæ of moth. Natural size.
5. Larva. Natural size.
6. Foreleg. Moth.
7. Hindleg. Moth.

emulsified oil compound. If the potatoes are treated prior to infestation by the grub, spraying with a solution of tuberol at the strength of 1 gallon to 30 gallons of water will suffice to prevent damage. If the grub is already in the tubers it is necessary to dip them in a tuberol solution of the same strength for a period of at least half an hour. Potatoes for consumption may be treated without detriment as well as those intended for seed.

Eelworm (*Heterodera radicola*).

In certain districts in the State these nematodes cause a considerable amount of damage. They are found on crops in all classes of soil, whether virgin or otherwise, but the most favorable conditions to them are found on well-drained lands. The damage to a crop is caused by the female, which is scarcely visible to the naked eye.

Affected tubers are easily detected by the cysts formed, generally in clusters, on the skin of of the tubers. These cysts break down later, and form a scab which, without microscopic examination, is not readily distinguishable from other causative agents of scab.

Tubers treated for five minutes in Tuberol Solution (100 per cent. clean after five months).

Untreated tubers from same parcel as those shown above (100 per cent. affected in fourteen days).

Control.—As control of damage by chemical treatment is not economically practicable, the only recommendation that can be made is to use eelworm-free seed as far as possible. Rotation of crops is also advisable, so that potatoes will not be planted in the same soil oftener than once in four or five years. The reason for the effectiveness of rotational practice is that the eelworm changes its host plant only with difficulty, and when rotation is practised, the worms are starved out in large numbers before they can adapt themselves to a new plant.

Heavy applications of potassium sulphate to the crop have been found to have a checking influence on eelworm damage, but as potash has a distinctly depressing effect on the

Eelworm-affected Tuber.

potato yield in practically all Victorian soils this treatment cannot be advocated. In any case the very high cost per acre of such applications puts the potash treatment out of court.

In districts where eelworm infestation is found, it is inadvisable to follow a grass and clover crop with potatoes, as this practice is favorable to eelworm. The safest crop to precede potatoes in affected country is an oat or barley crop. Preferably these should be fed off by stock, and the final growth ploughed in either before planting the potatoes, or at the actual planting time. This method gives the greatest degree of immunity from eelworm.

Rutherglen Bug (*Nysius vinitor*).

Occasionally the Rutherglen Bug has caused considerable loss to potato-growers, though in the majority of seasons it is not much in evidence. It is a suctorial insect which attacks the leaves of the growing crop. Some years ago the bugs appeared in myriads in Gippsland; they destroyed some crops completely, and greatly reduced the yield of others by damaging the leaves.

Control.—Smudge fires placed at short intervals through the crop are an effective check. These fires are made from any old rubbish, such as waste straw, cavings, and bagging, and a couple of handfuls of sulphur should be added to each. This treatment is effective in driving off the insects and generally prevents, because of the residual odor of the sulphur, a recurrence of the attack.

Degenerative Disease (*Virus*).

Becoming each year more in evidence, virus infection of the potato crop is a very serious cause of reduction in yields. Though its actual cause is not definitely known, it is generally admitted that once a parcel becomes affected there is no known means of eradicating the disease. It is spread from diseased plants to clean ones by green aphis, and is fairly easily recognizable by one of three variations in the manner in which its presence is revealed on the tops of the plants. It is not recognizable on the tubers, though these may act as carriers. The result of the disease is a lessening of the yield of the crop; in severe cases the loss may amount to as much as 80 per cent., perhaps more.

Illustrations are given of the three mentioned variations of the disease on the leaf system of affected potato plants. These variations are commonly called mosaic, leaf roll, and streak, and are easily distinguishable from each other.

Rutherglen Bug.

1. Head Magnified. 2. Under side of Insect. 3. Insect, natural size. 4. Upper side of Insect.

Mosaic caused by Virus Disease.

Control.—Unfortunately, this disease cannot be controlled by chemical treatment, as can Rhizoctonia, &c. The only possible safeguard is the practise of seed selection, i.e., the selection only of tubers from plants, apparently free from disease, of good type and high productive capacity. Even then, an absolute guarantee from virus infection cannot be given, but the grower who chooses his seed in the way mentioned is at least giving himself the greatest chance of having a clean crop. It has been noted that the use of immature instead of ripe seed secures a degree of immunity from virus attack. Greening of seed during storage and the consequent preservation of the buds is also of considerable advantage, because this enables the grower to discriminate between vigorous and weakling tubers, and virus is always associated with weakened constitution.

Leaf Roll caused by Virus Disease.

Result on Yield of Disease Control.

As showing the advantage to be gained by preventing disease damage to the crop, the following figures obtained at the Millbrook experimental station are submitted. For three seasons a portion of the seed used was treated with formalin at the regular strength (1 lb. to 20 gallons water), while as a check the remainder was left untreated.

Streak caused by Virus Disease.

The diseases which it was desired to check were chiefly Rhizoctonia and ordinary scabs.

The following were the results:—

	T.	C.	Q.
Average for three years from dipped seed	6	3	0
Average for three years from undipped seed	3	2	0
Increased average yield for three years ..	3	1	0

or 98 per cent.

No claim whatever of any manurial value is made for the formalin. The increase (which is of extraordinary significance) was entirely due to the fact that the plants, being freed from attack by these particularly prevalent diseases, were able to function normally without restriction, and so develop the tubers to the full.

Orchard and Garden Notes

By Edward E. Pescott, F.L.S.

Shirley Poppies.

The Flower Garden.

FOR a spring show of flowers, the planting out of Iceland poppies may be considered. There are several strains of these popular plants. First, there is the ordinary type, improved, of course, from the original, having long stems, with blossoms of white, yellow, and orange shades. Then there are the Coonara pink types, which give flowers of all shades of pink, from deep to pale; and there are also a number of so-called "art" shades, usually pale and indefinite in colour.

Plants should be set out now in the borders; a space of about 6 inches is necessary between each. The soil should be well manured before planting. Lime must not be used in the soil work; not that these plants are lime-haters, but lime encourages the development of "poppy wilt." This is a fungus disease which causes a rapid wilting and death of the plants. As soon as wilt is noted the diseased plants should be burned, and the whole of the bed dusted either with copper carbonate or with Cheshunt compound.

The poppy-bed must be well drained, and in as sunny a position as possible. No stagnant water should be allowed to settle around the plants.

The Shirley differs from the Iceland poppy. It is an annual which in spring gives an abundance of large white, pink, or red flowers on long stems. This variety was crossed with the Iceland poppy to give the Coonara pink types.

Seeds of Shirley poppy may now be sown in the garden; they should be scattered in the place where the plants are to remain; a fairly good soil is desirable.

General work in the garden now will include a good deep digging; lime should be put into the soil wherever possible.

The Orchard.

Victoria is still importing large supplies of nuts from abroad; this, coupled with the fact that nuts of all descriptions are easily grown and produced here, leads us to suggest again the further planting of certain types of nut trees.

On account of the susceptibility of walnut seedlings to bacterial blight or "black spot" of walnut, the planting of seedlings must be avoided; only worked trees should be used for the plantation. There are several varieties of early-bearing walnuts now available, especially two known as Wilson's Wonder and Freshford Gem. These, when worked on hardy stocks, are black spot proof, and they come into bearing very early, and thus the long wait, previously experienced with seedling walnuts, may be avoided.

There is a record of a young Wilson's Wonder tree bearing 28 nuts in less than two years from the bud, but this is phenomenal.

[*Continued on page 257.*

Registration of Stallions

Fourteenth Annual Report

(Horse Breeding Act 1928)

R. N. Johnstone, B.V.Sc.

OPERATIONS under the Horse Breeding Act during the year 1933-34 furnish evidence that the fall in value of primary products has convinced the farming community that the horse provides the most economical means of traction. As a result, a great revival in the horse-breeding industry has occurred, causing an increased demand for suitable sires; consequently, the number of stallions submitted for examination during the current year has broken all previous records. The greatest increase has naturally occurred in the draught class, but the light and pony classes have also increased slightly.

In all, 803 horses were submitted for examination during 1933-34; in 1932-33, 623 were submitted, and in the preceding year 354. Of the number examined this year, 503 received certificates, and 300 were rejected—94 because of unsoundness, and 206 because of defects in type, conformation, or breeding. Of those declared to be unsound, by far the greater number, viz.:—75 (all draught horses), or 9.340 per cent., were rejected because of sidebones. The occurrence of this disease in such a large percentage of stallions, despite the examinations carried out each year under the Horse Breeding Act, has been the cause of considerable discussion amongst horse-owners, and has led interested bodies to suggest certain amendments of the Act designed to overcome weaknesses mentioned in previous reports. The persistence of this unsoundness has been attributed partly to the use of sires by owners who avail themselves of the provision whereby an owner of a stallion, on payment of a small fee at the time that registration is refused, is permitted to use such stallion for breeding purposes with his own mares, and partly to the illegal use of unsound stallions for breeding purposes.

In order to determine to what extent this concession operates to the detriment of the industry, I have endeavoured to ascertain the ultimate fate of stallions which were refused registration during the year under review, with the following result:—94 stallions were rejected for unsoundness, 26 were subject to compensation under the Horse Breeding Act, as they had been registered for the year 1932-33, and 68 were rejected at first examination, and therefore were not subject to compensation. Of the 26 subject to compensation, 17 have been gelded, and compensation has been paid or is in course of payment; 2 were sold; the owners of 2 have not yet decided on their future action, and the owners of 5 have decided to use the stallions with their own mares. Of the 68 rejected at first examination, and therefore not subject to compensation, 18 are being used for breeding purposes with their owners' mares; 4 have been gelded; 1 was granted a certificate by an appeal Board; 2 have been sold, and are now in another State, and no information has been received as to the fate of the remaining 43.

These figures furnish definite information that at least 23 of this year's unsound stallions have been used for breeding purposes, and will, no doubt, add their quota to the rejections which one may look forward to in the near future. Besides these, there may be still a few horses over three years of age which have never been submitted for examination, and a number of rejected ones being used illegally.

Despite these facts, however, I recently had the pleasing experience of being told by one who purchased horses for use in all States of Australia that if he wishes to obtain reliable, sound, good type animals for heavy transport work, he has to come to Victoria for

them. That opinion I have heard confirmed by leading veterinarians in two neighbouring States.

During the year 1,146 stallions were registered under the Act, an increase of 185 when compared with the 961 registered during 1932-33. In classes these comprise draught 842, a rise of 139; light 178, an increase of 25; and pony 126, a rise of 21.

Examinations during this year were made at 281 parades. Of these 195 were scheduled parades, and 86 special parades carried out at

Summary of Examinations, 1933-34.

—	Draught.		Light.		Pony.		Total.	
	Examined. 649	Certificated. 399	Examined. 102	Certificated. 69	Examined. 52	Certificated. 35	Examined. 803	Certificated. 503
	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.
Bog Spavin	1	·154	1	·980	..	..	2	·249
Bone Spavin	1	·154	..	..	..	..	1	·125
Cataract	..	..	..	..	..	..	..	..
Curb	..	..	1	·980	2	3·846	3	·374
Osteo Porosis	..	..	..	..	2	3·846	2	·249
Ringbone	3	·463	..	..	1	1·923	4	·498
Roaring	..	..	..	..	..	..	..	..
Shivering	2	·308	..	..	..	..	2	·249
Sidebone	75	11·556	..	..	..	..	75	9·340
Stringhalt	5	·770	..	..	..	..	5	·623
Through unsoundness	87	13·405	2	1·960	5	9·615	94	11·707
Through disapproval	163	25·115	31	30·392	12	23·077	206	25·653
Total	250	38·520	33	32·352	17	32·692	300	37·360

Summary of Examinations, 1932-33.

—	Draught.		Light.		Pony.		Total.	
	Examined. 503	Certificated. 260	Examined. 81	Certificated. 50	Examined. 39	Certificated. 26	Examined. 623	Certificated. 336
	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.	Rejected.	Per cent. Rejected.
Bog Spavin	1	·199	..	..	1	2·564	2	·322
Bone Spavin	1	·199	1	1·234	1	2·564	3	·482
Cataract	1	·199	..	..	..	..	1	·160
Curb	..	..	1	1·234	..	..	1	·160
Osteo Porosis	..	..	1	1·234	..	..	1	·160
Ringbone	7	1·391	2	2·470	1	2·564	10	1·605
Roaring	..	..	1	1·234	..	..	1	·160
Shivering	..	..	1	1·234	..	..	1	·160
Sidebone	101	20·080	..	..	..	..	101	16·212
Stringhalt	1	·199	..	..	..	..	1	·160
Through unsoundness	112	22·267	7	8·640	3	7·692	122	19·582
Through disapproval	131	26·043	24	29·630	10	25·641	165	26·485
Total	243	48·310	31	38·270	13	33·333	287	46·067

the owners' expense. The great number of special parades gives rise to considerable difficulty because of our depleted veterinary staff. During the past six years the field veterinary staff has been reduced from eight to five, and it is hoped that for the 1934-35 season owners will endeavour to submit their horses for examination at one of the parades shown in the appended list, and thus save themselves considerable expense, and the administrative veterinary staff an immense amount of worry.

APPEALS.

Nineteen examinations were conducted by appeal Boards appointed by the Minister, pursuant to appeals lodged by owners of rejected stallions against the decision of veterinary officers. The appeals were upheld in two cases of rejection on account of disapproval, and one for nervy. Nine appeals in respect of disapproval, two on account of rejection for sidebones, one for bog spavin, and two for stringhalt were dismissed; the decision in the case of two appeals against rejection for disapproval was deferred for twelve months in order that the owners might be given the opportunity to develop the physique of their animals by suitable care and attention.

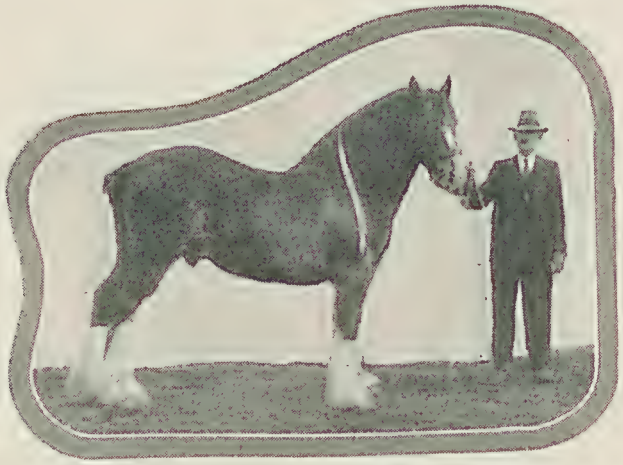
Parades for the Coming Season.

Appended to this report is the schedule of stallion inspection parades for the ensuing year. Owners of stallions are reminded that application for registration must be lodged with the chief veterinary inspector on or before 1st July, 1934. Applications must be accompanied by a fee of £3, which comprises registration fee of £1, and compensation fee of £2.

It should also be noted that unless an application is duly received indicating that a stallion will be presented for inspection at a scheduled parade at least seven (7) days prior to the date fixed for the parade, the veterinary officer will not necessarily visit the place of parade, and any owner neglecting to so apply will be called upon to pay the additional cost of a special examination, in order to avoid proceedings being instituted for failing to comply with the Act.

Forms of application may be obtained from secretaries of agricultural societies, and from officers in charge of police stations.

Change of ownership must be notified without delay in order that certificates of registration may be endorsed accordingly. A registration expires within 30 days unless the required notice is given.



Stallion Parades

Time Table, 1934

Provided that the applications for registration received indicate that one horse or more will be in attendance there for examination, a parade will be held at each of the following places.

Horses submitted for examination must have had such training that the Examining Veterinary Officer may with safety handle their legs ; further, the legs of every animal should be in a thoroughly clean condition.

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
Every Saturday from July 7 to December 22	Agricultural Offices	10 a.m.		
No. 1.				
Tuesday, July 3 ..	Jeparit Show Grounds	9 a.m. ..	7.22 p.m. (2nd)	Driving
Tuesday, July 3 ..	Lorquon Railway Station ..	11 a.m. ..	Driving ..	Driving
Tuesday, July 3 ..	Netherby Railway Station ..	12 noon ..	Driving ..	Driving
Tuesday, July 3 ..	Yanac Railway Station	2.30 p.m. ..	Driving ..	Driving
Tuesday, July 3 ..	Broughton	4 p.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Kaniva Commercial Hotel ..	9 a.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Nhill Show Grounds	1.30 p.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Gerang Gerung Railway Station ..	4 p.m. ..	Driving ..	Driving
Thursday, July, 5 ..	Dimboola, Wall's Hotel ..	10 a.m. ..	Driving ..	2.15 p.m.
No. 2.				
Monday, July 2 ..	Yarrawonga Shire Office ..	2 p.m. ..	1.55 p.m. ..	3.25 p.m.
Monday, July 2 ..	Goorambat Railway Station ..	4.40 p.m. ..	4.36 p.m. ..	8.13 p.m.
Tuesday, July 3 ..	Tungamah Railway Station ..	10 a.m. ..	8.57 p.m. (2nd)	1.35 p.m.
Wednesday, July 4 ..	Benalla Railway Station ..	10 a.m. ..	4.35 p.m. (3rd)..	12.5 p.m.
Wednesday, July 4 ..	Rutherglen Railway Station ..	2.10 p.m. ..	2.10 p.m. ..	2.10 p.m.
Wednesday, July 4 ..	Wahgunyah Railway Station ..	2.45 p.m. ..	2.45 p.m. ..	7.10 a.m. (5th)
Thursday, July 5 ..	Barnawartha Railway Station ..	2 p.m. ..	1.55 p.m. ..	3.30 p.m.
No. 3.				
Tuesday, July 3 ..	Sea Lake, Royal Hotel	9 a.m. ..	7.15 p.m. (2nd)..	Driving
Tuesday, July 3 ..	Nyarrin Railway Station ..	11 a.m. ..	Driving ..	Driving
Tuesday, July 3 ..	Nandaly Railway Station ..	12 noon ..	Driving ..	Driving
Tuesday, July 3 ..	Speed Railway Station	2.30 p.m. ..	Driving ..	Driving
Tuesday, July 3 ..	Lascelles Railway Station ..	4 p.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Woomelang, Commercial Hotel ..	9 a.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Berriwillock Railway Station ..	12 noon ..	Driving ..	Driving
Wednesday, July 4 ..	Culgoa, Kaneira Hotel	2 p.m. ..	Driving ..	Driving
Wednesday, July 4 ..	Nullawil Railway Station ..	3 p.m. ..	Driving ..	Driving
Thursday, July 5 ..	Wycheproof Railway Station ..	10 a.m. ..	Driving ..	12.25 p.m.
No. 4.				
Monday, July 9 ..	Boort Railway Station	3.50 p.m. ..	3.50 p.m. ..	Driving
Tuesday, July 10 ..	Quambatook Hotel	9 a.m. ..	Driving .	Driving
Tuesday, July 10 ..	Gredgwin Railway Station ..	11 a.m. ..	Driving ..	12 noon
Wednesday, July 11 ..	Charlton, Cricket Club Hotel ..	10 a.m. ..	3.53 p.m. (10th)	1.30 p.m.
Wednesday, July 11 ..	Korongvale Railway Station ..	2.45 p.m. ..	2.45 p.m. ..	3.25 p.m.
Wednesday, July 11 ..	Inglewood Railway Station ..	4.15 p.m. ..	4.15 p.m. ..	1.29 p.m. (12th)
Thursday, July 12 ..	Wedderburn Railway Station ..	2.35 p.m. ..	2.35 p.m. ..	3.10 p.m.
No. 5.				
Monday, July 9 ..	Maryborough Railway Station ..	1 p.m. ..	12.30 p.m. ..	10 p.m.
Monday, July 9 ..	Avoca Railway Station	3 p.m. ..	Driving ..	Driving
Tuesday, July 10 ..	Mildura Railway Station ..	9 a.m. ..	7 a.m. ..	Driving
Tuesday, July 10 ..	Carwarp Railway Station ..	10.30 a.m. ..	Driving ..	Driving
Tuesday, July 10 ..	Nowingi Railway Station ..	11 a.m. ..	Driving ..	Driving

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 5—*continued.*				
Tuesday, July 10	Hattah-road Junction	12 noon	Driving	Driving
Tuesday, July 10	Trinita Railway Station	12.30 p.m.	Driving	Driving
Tuesday, July 10	Ouyen Show Grounds	2 p.m.	Driving	Driving
Tuesday, July 10	Tiega Post Office	3.15 p.m.	Driving	Driving
Tuesday, July 10	Galah Railway Station	3.30 p.m.	Driving	Driving
Tuesday, July 10	Walpeup Railway Station	4.15 p.m.	Driving	Driving
Wednesday, July 11	Torrita Railway Station	9 a.m.	Driving	Driving
Wednesday, July 11	Underbool Railway Station	10 a.m.	Driving	Driving
Wednesday, July 11	Linga Railway Station	11 a.m.	Driving	Driving
Wednesday, July 11	Boinka Railway Station	11.45 a.m.	Driving	Driving
Wednesday, July 11	Tutye Railway Station	12.30 p.m.	Driving	Driving
Wednesday, July 11	Cowangie Railway Station	1 p.m.	Driving	Driving
Wednesday, July 11	Danyo Railway Station	1.40 p.m.	Driving	Driving
Wednesday, July 11	Murrayville Railway Station	3 p.m.	Driving	Driving
Wednesday, July 11	Carina Railway Station	3.45 p.m.	Driving	Driving
Wednesday, July 11	Panitya Railway Station	4.30 p.m.	Driving	Driving
Thursday, July 12	Morkalla Railway Station	12 noon	Driving	Driving
Thursday, July 12	Meringur Railway Station	1 p.m.	Driving	Driving
Thursday, July 12	Bambill Railway Station	2.15 p.m.	Driving	Driving
Thursday, July 12	Werrimul Railway Station	3 p.m.	Driving	Driving
Thursday, July 12	Merrinee-road Junction	4 p.m.	Driving	Driving
Thursday, July 12	Pirlta-road Junction	4.30 p.m.	Driving	Driving
Thursday, July 12	Benetook-road Junction	5 p.m.	Driving	Driving
No. 6.				
Tuesday, July 10	Natimuk Railway Station	11.5 a.m.	11.5 a.m.	11.30 a.m.
Tuesday, July 10	Gymbowen Railway Station	1 p.m.	1 p.m.	Driving
Tuesday, July 10	Goroke Railway Station	1.15 p.m.	Driving	5.15 p.m.
Tuesday, July 10	Edenhope Sale Yards	3 p.m.	Driving	Driving
Wednesday, July 11	Horsham, Young Bros.' Sale Yards	8 a.m.	8.20 p.m. (10th)	3.50 p.m.
Thursday, July 12	Ararat Railway Station	10 a.m.	8.35 p.m. (11th)	Driving
Thursday, July 12	Maroona Railway Station	12 noon	Driving	Driving
Thursday, July 12	Beaufort Railway Station	4.22 p.m.	4.22 p.m.	8.22 a.m. (13th)
Friday, July 13	Stawell Railway Station	11.10 a.m.	11.10 a.m.	2.23 p.m.
No. 7.				
Monday, July 16	St. Arnaud Show Grounds	3 p.m.	3 p.m.	11.40 p.m.
Tuesday, July 17	Donald Railway Station	2 p.m.	12.25 a.m.	5.30 p.m.
Wednesday, July 18	Birchip, Shamrock Hotel	9 a.m.	7.10 p.m. (17th)	Driving
Wednesday, July 18	Watchem Hotel	11 a.m.	Driving	12.40 p.m.
No. 8.				
Monday, July 16	Kyabram Railway Station	12.12 p.m.	12.12 p.m.	Driving
Monday, Juy 16	Tongala Hotel	2 p.m.	Driving	4.42 p.m.
Tuesday, July 17	Tatura Show Grounds	12 noon	5.33 p.m. (16th)	5.33 p.m.
Wednesday, July 18	Seymour Railway Station	9 a.m.	7.47 p.m. (17th)	9.50 a.m.
Wednesday, July 18	Euroa Railway Station	11 a.m.	11 a.m.	6.46 p.m.
Thursday, July 19	Wangaratta Show Grounds	9 a.m.	8.14 p.m. (18th)	Driving
Thursday, July 19	Moyhu	11 a.m.	Driving	Driving
Thursday, July 19	Myrtleford Railway Station	1 p.m.	Driving	Driving
Thursday, July 19	Beechworth, Tanswell's Hotel	2.30 p.m.	2.30 p.m.	7.55 a.m. (20th)
No. 9.				
Tuesday, July 17	Koondrook Hotel	9 a.m.	5.25 p.m. (16th)	9 a.m.
Tuesday, July 17	Kerang, Kerang Hotel	2 p.m.	10.15 a.m.	3.50 p.m.
Wednesday, July 18	Nyah Railway Station	9.15 a.m.	Driving	Driving
Wednesday, July 18	Piangil Railway Station	10 a.m.	Driving	Driving
Wednesday, July 18	Kooloonong Railway Station	11.30 a.m.	Driving	Driving
Wednesday, July 18	Bannerton Railway Station	1.30 p.m.	Driving	Driving
Wednesday, July 18	Margooya Railway Station	1.45 p.m.	Driving	Driving
Wednesday, July 18	Annuello Railway Station	2 p.m.	Driving	Driving
Wednesday, July 18	Koimbo Railway Station	2.15 p.m.	Driving	Driving
Wednesday, July 18	Bolton Railway Station	2.30 p.m.	Driving	Driving
Wednesday, July 18	Manangatang Railway Station	4 p.m.	Driving	Driving

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs
No. 9—*continued.*				
Thursday, July 19	Cocamba Railway Station	9.30 a.m.	Driving	Driving
Thursday, July 19	Chinkapook Railway Station	10 a.m.	Driving	Driving
Thursday, July 19	Chillingollah Railway Station	10.30 a.m.	Driving	Driving
Thursday, July 19	Waitchie Railway Station	11 a.m.	Driving	Driving
Thursday, July 19	Gowanford Railway Station	11.15 a.m.	Driving	Driving
Thursday, July 19	Ultima Railway Station	1 p.m.	Driving	Driving
Thursday, July 19	Lalbert Railway Station	2.30 p.m.	Driving	Driving
Friday, July 20	Swan Hill Show Grounds	10 a.m.	Driving	11.40 a.m.
No. 10.				
Monday, July 23	Murchison East Railway Station	10.35 a.m.	10.35 a.m.	10.50 a.m.
Monday, July 23	Rushworth Railway Station	2 p.m.	11.30 a.m.	5.20 p.m.
Tuesday, July 24	Shepparton Show Grounds	10 a.m.	8.10 p.m. (23rd)	Driving
Tuesday, July 24	Dookie Railway Station	12.40 p.m.	Driving	Driving
Tuesday, July 24	Katamatite Railway Station	2.5 p.m.	Driving	Driving
Wednesday, July 25	Nagambie Railway Station	9 a.m.	7.10 p.m. (24th)	10.11 a.m.
Wednesday, July 25	Nathalia Railway Station	2 p.m.	1.37 p.m.	3.20 p.m.
Thursday, July 26	Numurkah, Shamrock Hotel	10 a.m.	4.13 p.m. (25th)	12.33 p.m.
Thursday, July 26	Strathmerton Railway Station	12.56 p.m.	12.56 p.m.	1.5 p.m.
Thursday, July 26	Cobram Railway Station	1.50 p.m.	1.50 p.m.	3.30 p.m.
No. 11.				
Monday, July 30	Port Fairy, Star of the West Hotel	3.35 p.m.	3.30 p.m.	Driving
Tuesday, July 31	Koroit, Koroit Inn Hotel	11 a.m.	Driving	Driving
Tuesday, July 31	Hawkesdale Hotel	1.30 p.m.	Driving	Driving
Tuesday, July 31	Penshurst Police Station	3 p.m.	Driving	Driving
Tuesday, July 31	Caramut Hotel	4 p.m.	Driving	Driving
Wednesday, August 1	Warrnambool Railway Station	10 a.m.	Driving	Driving
Wednesday, August 1	Terang, Macdonald's Yard	2.30 p.m.	Driving	Driving
Wednesday, August 1	Mortlake, Mt. Shadwell Hotel	3.30 p.m.	Driving	Driving
Thursday, August 2	Camperdown, Dalgety's Yards	10 a.m.	4.40 p.m. (1st)	Driving
Thursday, August 2	Timboon Railway Station	1 p.m.	Driving	Driving
Thursday, August 2	Cobden Railway Station	3 p.m.	Driving	Driving
No. 12.				
Tuesday, July 31	Hamilton Police Station	3 p.m.	6 p.m. (30th)	5.10 p.m.
Wednesday, August 1	Coleraine, Coleraine Hotel	10 a.m.	6.25 p.m. (31st)	Driving
Wednesday, August 1	Casterton, Albion Hotel	4 p.m.	Driving	Driving
Thursday, August 2	Branxholme Railway Station	3 p.m.	Driving	5.25 p.m.
Friday, August 3	Heywood Railway Station	9 a.m.	6. 45 p.m. (2nd)	Driving
Friday, August 3	Portland Post Office	10 a.m.	Driving	11 a.m.
No. 13.				
Tuesday, July 31	Rochester Fire Station	10 a.m.	10.28 p.m. (30th)	1.23 p.m.
Tuesday, July 31	Echuca Railway Station	2.5 p.m.	2.5. p.m.	3.45 p.m.
Wednesday, August 1	Elmore, Mitchie-street	10.30 a.m.	4.55 p.m. (31st)	1.10. p.m.
Wednesday, August 1	Cohuna Show Grounds	3.40 p.m.	3.40 p.m.	10.30 a.m. (2nd)
No. 14.				
Monday, August 6	Alexandra Police Station	2 p.m.	12.30 p.m.	4.35 p.m.
Tuesday, August 7	Yea Railway Station	9 a.m.	6.20 p.m. (6th)	10.35 a.m.
Tuesday, August 7	Mansfield, Delatite Hotel	2.30 p.m.	1.55 p.m.	3.30 p.m.
Wednesday, August 8	Wodonga Railway Station	2.12 p.m.	2.12 p.m.	2.40 p.m.
Wednesday, August 8	Tallangatta Railway Station	4.20 p.m.	4.20 p.m.	Driving
Thursday, August 9	Corryong, Court House Hotel	10 a.m.	Driving	Driving
Thursday, August 9	Eskdale Hotel	3 p.m.	Driving	Driving
No. 15.				
Monday, August 6	Minyip, Club Hotel	4.34 p.m.	4.34 p.m.	Driving
Tuesday, August 7	Marnoo Railway Station	9 a.m.	Driving	Driving
Tuesday, August 7	Rupanyup Railway Station	10 a.m.	Driving	Driving
Tuesday, August 7	Murtoa Railway Station	1.30 p.m.	12.50 p.m.	5 p.m.
Wednesday, August 8	Patchewollock Railway Station	9 a.m.	Driving	Driving

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 15—*continued.*				
Wednesday, August 8	Hopetoun Show Grounds	11 a.m.	8.15 p.m. (7th)	Driving
Wednesday, August 8	Yaapeet Railway Station	2.30 p.m.	Driving	Driving
Wednesday, August 8	Rainbow, Commonwealth Hotel	3.30 p.m.	Driving	Driving
Wednesday, August 8	Kenmare	4.30 p.m.	Driving	Driving
Thursday, August 9	Beulah Show Grounds	9 a.m.	Driving	11.40 a.m.
No. 16.				
Tuesday, August 14	Geelong, Myers-street Sale Yards	1 p.m.	12 noon	Driving
Tuesday, August 14	Bannockburn Railway Station	3 p.m.	Driving	Driving
Tuesday, August 14	Inverleigh Railway Station	4 p.m.	Driving	Driving
Wednesday, August 15	Cressy Railway Station	11.11 a.m.	11.11 a.m.	11.25 a.m.
Wednesday, August 15	Vite Vite Railway Station	12.49 p.m.	12.49 p.m.	4.20 p.m.
Wednesday, August 15	Lismore Railway Station	4.55 p.m.	4.55 p.m.	Driving
No. 17.				
Monday, August 13	Colac, Butter Factory	10.5 a.m.	10.5 a.m.	11.30 a.m.
Monday, August 13	Beech Forest Railway Station	2.50 p.m.	2.50 p.m.	1.30 p.m. (14th)
Wednesday, August 15	Winchelsea Railway Station	10 a.m.	6.40 p.m. (14th)	11.6 a.m.
Wednesday, August 15	Werribee Railway Station	1 p.m.	1 p.m.	2.20 p.m.
Wednesday, August 15	Lara Railway Station	2.45 p.m.	2.45 p.m.	4.38 p.m.
Thursday, August 16	Birregurra Railway Station	10.41 a.m.	10.41 a.m.	7.55 p.m.
No. 18.				
Tuesday, August 21	Mitiamo Railway Station	1.38 p.m.	1.38 p.m.	1.54 p.m.
Tuesday, August 21	Pyramid Railway Station	2.20 p.m.	2.20 p.m.	3.22 p.m.
Wednesday, August 22	Raywood Railway Station	11 a.m.	5.3 p.m. (21st)	12.50 p.m.
Wednesday, August 22	Tandarra Railway Station	1.4 p.m.	1.4 p.m.	4.42 p.m.
Thursday, August 23	Bendigo Show Grounds	10 a.m.	6.10 p.m. (22nd)	Driving
Thursday, August 23	Eddington Hotel	1 p.m.	Driving	Driving
Thursday, August 23	Eastville	2 p.m.	Driving	Driving
Thursday, August 23	Baringhup	2.30 p.m.	Driving	Driving
Thursday, August 23	Maldon Railway Station	3.30 p.m.	Driving	Driving
Thursday, August 23	Newstead Railway Station	4.30 p.m.	Driving	Driving
Thursday, August 23	Castlemaine Railway Station	5.15 p.m.	Driving	7.43 p.m.
No. 19.				
Monday, August 20	Morwell Railway Station	11.42 a.m.	11.41 a.m.	Driving
Monday, August 20	Traralgon Railway Station	3 p.m.	Driving	Driving
Tuesday, August 21	Rosedale Railway Station	10 a.m.	Driving	Driving
Tuesday, August 21	Kilmany Railway Station	11 a.m.	Driving	Driving
Tuesday, August 21	Sale Railway Station	12 noon	Driving	Driving
Tuesday, August 21	Maffra Railway Station	2 p.m.	Driving	Driving
Tuesday, August 21	Cowwarr Railway Station	3 p.m.	Driving	Driving
Wednesday, August 22	Warragul Show Grounds	9 a.m.	7.28 p.m. (21st)	Driving
Wednesday, August 22	Neerim	2 p.m.	Driving	Driving
Thursday, August 23	Bunyip Railway Station	10.1 a.m.	10.1 a.m.	11.13 a.m.
Thursday, August 23	Dandenong Railway Station	12.24 p.m.	12.24 p.m.	1 p.m.
No. 20.				
Monday, August 27	Mernda Railway Station	10.21 a.m.	10.21 a.m.	11.2 a.m.
Tuesday, August 28	Wallace Railway Station	10.27 a.m.	10.27 a.m.	11.20 a.m.
Tuesday, August 28	Ballan Railway Station	11.49 a.m.	11.49 a.m.	Driving
Tuesday, August 28	Bacchus Marsh, Border Inn Hotel	2 p.m.	Driving	Driving
Tuesday, August 28	Melton Railway Station	4 p.m.	Driving	7.51 p.m.
Wednesday, August 29	Romsey Railway Station	10.30 a.m.	10.30 a.m.	1.15 p.m.
Thursday, August 30	Lilydale Railway Station	2 p.m.	1.59 p.m.	3.3 p.m. (Road motor)
Thursday, August 30	Millgrove Railway Station	4 p.m.	4 p.m.	5.45 p.m.

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 21.				
Monday, August 27	Daylesford, Raglan Hotel	12 noon	11.10 a.m.	2 p.m.
Monday, August 27	Kingston Hotel	3.25 p.m.	3.25 p.m.	Driving
Monday, August 27	Clunes Post Office	4 p.m.	Driving	Driving
Monday, August 27	Creswick Post Office	4.30 p.m.	Driving	6.40 a.m. (28th)
Tuesday, August 28	Waubra Post Office	10 a.m.	Driving	Driving
Tuesday, August 28	Burrumbeet Railway Station	11 a.m.	Driving	Driving
Tuesday, August 28	Trawalla Railway Station	12 noon	Driving	Driving
Tuesday, August 28	Skipton Post Office	2 p.m.	Driving	Driving
Tuesday, August 28	Linton Post Office	3 p.m.	Driving	Driving
Wednesday, August 29	Ballarat, Haymarket	10 a.m.	Driving	10.55 a.m.
Thursday, August 30	Kyneton Show Grounds	10 a.m.	9.51 a.m.	Driving
Thursday, August 30	Redesdale Hotel	12 noon	Driving	Driving
No. 22.				
Monday, August 27	Wonthaggi Railway Station	10.40 a.m.	10.40 a.m.	Driving
Monday, August 27	Anderson Railway Station	2 p.m.	Driving	Driving
Tuesday, August 28	Korumburra Railway Station	10 a.m.	9 p.m. (27th)	11.1 a.m.
Tuesday, August 28	Foster Railway Station	12.49 p.m.	12.49 p.m.	12.53 p.m.
Tuesday, August 28	Yarram Sale Yards	3 p.m.	2.5 p.m.	7.15 a.m. (29th)
Wednesday, August 29	Stony Creek Railway Station	9.5 a.m.	9.5 a.m.	Driving
Wednesday, August 29	Leongatha Railway Station	9.25 a.m.	Driving	9.35 a.m.
Thursday, August 30	Cranbourne Railway Station	9 a.m.	8.17 a.m.	10.35 a.m.
No. 23.				
Tuesday, September 4	Orbost, Club Hotel	9 a.m.	7 p.m. (3rd)	10.10 a.m.
Tuesday, September 4	Bairnsdale Sale Yards	1.45 p.m.	1.45 p.m.	Driving
Wednesday, September 5	Omeo, Golden Age Hotel	8 a.m.	Driving	Driving
Wednesday, September 5	Ensay South	10 a.m.	Driving	Driving
Thursday, September 6	Buchan	8 a.m.	Driving	Driving
No. 24.				
Thursday, September 6	Warracknabeal Show Grounds	9 a.m.	5.30 p.m. (5th)	1.35 p.m.
No. 25.				
Monday, September 3	Frankston Railway Station	12.51 p.m.	12.51 p.m.	2.20 p.m.
Tuesday, September 4	Kilmore, Royal Oak Hotel	9 a.m.	8.58 a.m.	Driving
Wednesday, September 5	Sunbury Show Grounds	11 a.m.	8.39 a.m.	2.47 p.m.
No. 26.				
Wednesday, October 17	Royal Show	10 a.m.		
Thursday, October 18	Royal Show	9 a.m.		

Stallion Register 1933-34

(Under the Horse Breeding Act 1928)

Registrations prior to the 1st February, 1934

Cert. No.	Name.	Age* and Class.	Owner and Address.
395	Abbots Best	A. D.	H. R. Richards, Trawool
1002	Abdulla King	A. P.	E. Burnside, Nathalia
521	Admiral Roy	A. L.	R. J. Cantwell, Beazley's Bridge
234	Ahitana Gift	4 D.	J. Leydon, Kilmore
235	Ahitana Laddie	4 D.	J. W. Scott, Katyil
236	Ahitana Springbank	4 D.	Ellwood Bros., Wallace
481	Ailsa Craig Wright	A. D.	A. W. Watters, Wunghnu
74	All Scotch	A. D.	P. L. Williams, Miram
1097	Allan Cleve	5 L.	R. C. Gordon, Drumanure
40	Allandale	A. D.	E. A. Altmann, Rainbow
237	Allandale Duplicate	3 D.	R. Carroll, Western Australia
955	Allen Pronto	4 L.	W. D. Taylor, Spring Vale
819	Allendale	5 D.	A. J. Trask, Irrewarra
238	Allendale Gibraltar	3 D.	E. B. Allen, Karamah
744	Allendale Sensation	4 D.	A. Gordon, Broughton
215	Allens Pride	3 D.	Barry Bros., Culgoa
723	Alto Minstrel	3 L.	E. G. Jones, Underbool
394	Amyville Fashion	A. D.	H. Richards, Trawool
515	Angle Court	3 L.	J. Timmins, Mitta Mitta
994	Antonio	3 L.	W. J. Paton, Lismore
379	Ardmore	A. D.	A. Pollock, Derby
647	Argall Northcote	3 D.	Collins Bros., Lismore
855	Armadales Elect	A. D.	R. V. Colliver, Cora Lynn
704	Arthurs Pride	5 D.	F. H. Coombs and Son, Mangalore
41	Athol Pat of Fenwick	A. P.	Ferguson and Rothwell, Temora, N.S.W.
759	Auchenflower	3 D.	B. Vagg, Moama, N.S.W.
42	Aussie Didblitz of Fenwick	A. P.	Mrs. A. D. Maclean, Yan Yean
734	Aviator	4 D.	H. Trimble, Pine Lodge
35	Balgrochan Warrior	A. D.	J. Galloway, Majorca
325	Ballygolly Again	A. D.	J. J. Lobb, Cope Cope
239	Balmedie Bold	3 D.	Maher Bros., Tatura
485	Balmedie Chief	3 D.	J. M. Smith, Melbourne
240	Balmedie Endeavour II.	5 D.	C. N. Davies, Rochester
809	Balmerino	A. T.	W. D. Wright, Broadford
573	Banagnar	3 T.	F. Wood, Tallangatta
505	Bando	A. D.	J. Noonan, Birchip
191	Bangor Pride	3 D.	C. H. Roediger, Lorquon
95	Banjo	A. P.	Mrs. S. A. Nicol, Dandenong
557	Bannock Dale	3 D.	J. B. Carter, Patchewollock
1020	Baraclan	3 T.	T. B. Waters, Corryong
194	Barkoola Prince	4 P.	W. Forster Woods, Melbourne
874	Barney	A. P.	J. Bell, Merino
98	Barney II.	A. P.	A. W. Thomson, Hamilton
980	Baron	A. D.	J. Carroll, Mudgegonga
650	Baron Again	3 D.	C. J. Appleby, Slaty Creek
1034	Baron Agitation	5 D.	Dukelow Bros., Mt. Cotterell
656	Baron Banjo	4 D.	P. K. Tomkins, Wando Vale
729	Baron Baritone	4 D.	A. G. Mibus, Croxton East
213	Baron Bellicose	5 D.	H. V. Maclean, Banyan
946	Baron Belmore	3 D.	A. Walters, Moyhu
288	Baron Black	4 D.	F. A. Lehmann, Lismore
830	Baron Boy	5 D.	R. Della Vedova, Donald
695	Baron Brae	3 D.	W. Crosbie, Birchip
265	Baron Buccleigh	3 D.	K. Tobin, Jung
834	Baron Carlyle	A. D.	E. C. Gibbs, Kew
3	Baron Cedric	A. D.	W. G. Wilkinson, Yarrawonga
506	Baron Chief	A. D.	S. E. McIntyre, Condah
403	Baron Clover	A. D.	J. A. Lord, Boigbeat
875	Baron Clyde	6 D.	Sanderson and Wardle, Swan Hill
616	Baron Clyde	3 D.	C. Coutts, Prairie
400	Baron Crawford	A. D.	L. J. King, Quambatook
299	Baron Dale	4 D.	Rigney Bros., Chinkapook
176	Baron Darnley	A. D.	G. E. McManus, Sea Lake
165	Baron Douglas	A. D.	T. Buckley, Romsey
371	Baron Estill	5 L.	J. Medlyn, St. Arnaud
661	Baron Fairfax	A. D.	F. J. McMahon, Corowa
954	Baron Flash	3 D.	A. K. Lade, Welshpool
382	Baron Footprint	A. D.	H. C. Wilson, Raywood
924	Baron Fyvie	A. D.	Shiels Bros., Youanmite
896	Baron Jack	A. D.	Mrs. E. E. Pickering, Hopetoun
468	Baron Lad	4 D.	G. Oldfield, Widgee, N.S.W.
1004	Baron Lee	A. D.	J. Beechey, Terang
862	Baron Loch	A. D.	W. Kempton and Sons, Camperdown
493	Baron Mac	5 D.	W. Sheehan, South Muckleford
75	Baron Major	A. D.	W. Hand, Willenabrina
406	Baron Masterstroke	A. D.	Donnan Bros., Watchupga
484	Baron May	A. D.	J. J. Quinn, Elmore
549	Baron Mountain Monarch	5 D.	H. Gilmore, Thornton
372	Baron Newfield	A. D.	F. A. Burkinshaw, Wareek
957	Baron Pettie	A. D.	J. Price, Mologa
701	Baron Pride	3 D.	L. Belleville, Watchem
212	Baron Prince	3 D.	H. J. Boxall, Woomelang
693	Baron Pryde	3 D.	T. A. Sanderson, Pinnaroo
579	Baron Roy	3 D.	Mrs. A. Gregory, Hopetoun
405	Baron Silk	A. D.	H. J. Smith, Lockhart
220	Baron Sportsman	3 D.	L. J. McClelland, Woomelang
1116	Baron Style	A. D.	J. P. Belleville, Watchem
502	Baron Victor	A. D.	W. P. Leach, Lake Bolac
669	Baron Wallace	3 D.	M. J. Sheridan, Donald
53	Baron Weerite	A. D.	J. Manifold, Weerite
837	Baron Willie	A. D.	L. A. C. Morris, Numurkah
548	Barondale	3 D.	C. E. Carra, Rupanyup
743	Baronet	4 D.	R. H. Williams, Crowlands
99	Barons Best	A. D.	Mrs. M. J. Bartlett, Yarrock
648	Barons Imprint	3 D.	J. S. P. Allen, Broughton
692	Barons Pride	3 D.	Mrs. S. I. Nicholls, Pinnaroo
999	Barons Pride	A. D.	H. W. Oberin, Goornong
206	Barons Prince	4 D.	Kennett Bros., Kaniva
121	Barons Royal Chief	A. D.	C. Appleby, Slaty Creek
1130	Barons Star	A. D.	J. Davison, Donald
646	Baroona Slademore	3 D.	E. W. Cross, Rainbow
177	Barry Boy	6 L.	B. O'Sullivan, Wattle Park
826	Basil Derby	4 L.	G. Tee, Kyabram
1058	Battery Head	3 T.	R. H. Larcombe, Mt. Moriac
70	Bay Garvin	6 D.	J. Nash, Corio
442	Beau Cavalier	6 D.	J. C. Wallis, Nhill
101	Beau Fils	A. T.	W. E. Mitchell, Corryong
592	Beau Geste	6 L.	Mrs. E. Christie, Warburton
828	Belgians Boy	4 D.	H. G. Kruger, Croxton East
970	Belgians Choice	A. D.	J. Bell, Merino
707	Belle Vue Brilliant Morn	4 D.	Jackson and McCluskey Strathmerton
522	Belmain Belmont	A. D.	L. J. King, Quambatook
477	Belmain Pride	3 D.	Mrs. J. McLean, Manangatang
137	Belmont	A. D.	J. Mildenhall, Ensay
584	Belmont Abbey	5 L.	E. Dunbar, Belmont
523	Belmont Again	A. D.	O. Jaeschke, Angip
1109	Belmont Prince	5 D.	J. Tweddle, Noorilim
339	Belmont Print	A. D.	J. M. Egan, Woodleigh
889	Belmont Ribbon	A. D.	W. Lucas, Goschen
341	Belmont Stephen	A. D.	A. J. D. McRae, Gre Gre North
266	Belted Knight	3 D.	G. K. Martin, Sandy Creek, S.A.
1127	Belverne Masterpiece	5 D.	L. Brennan, Beulah
691	Belville Favourite	3 D.	S. Fisher, Panitya
337	Ben Hamilton	A. D.	S. Lockhart, Sea Lake
54	Ben Lomond	A. D.	F. C. Openlander, Swan Hill
324	Ben Model	A. D.	H. Adams, Yaapeet
102	Benowrie Baron Dale	6 D.	S. Gould, Wedderburn

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
50	Bentravata ..	4 D.	A. Dahlenburg, Winiam East
913	Berkeley Bantam	A. P.	R. Crozier, South Morang
358	Berra Bach ..	A. P.	O. W. Zerbst, Diapur
929	Berwick Victor ..	A. D.	R. Day, Nathalia
1113	Bingen	A. L.	F. C. Luck, Shepparton
1059	Black Bunny ..	5 P.	Mrs. F. R. Renwick, Cheltenham
429	Black Jack ..	A. P.	R. W. Jukes, Maryborough
393	Black Prince ..	6 D.	W. J. Ibbs, Gannawarra
998	Black Shepherd ..	A. D.	Simpson Bros., Yambrina
1069	Black Wasp ..	A. P.	E. Wheelahan, Ballan
507	Blackadder ..	A. T.	J. G. Adams, Mansfield
947	Blackthorn of Penniwells	A. P.	Miss M. Small, Hawthorn
842	Blairs Footprint ..	A. D.	D. and J. Lyons, Roseberry East
43	Blairs Laddie ..	A. D.	C. G. McKenzie, Boonoonar
340	Blairs Pride ..	A. D.	C. A. Ingwersen, Patchewollock
57	Bloomfield Craig	6 D.	W. Black, Bundoora
14	Bloomfield Print	5 D.	N. Cameron, Tasmania
776	Blue Mark ..	3 D.	Harrison and Sons, Gladfield
56	Blue Peter ..	6 D.	Morton and Son, Geelong
953	Bob Avon ..	A. P.	N. W. Crowley, Pakenham
943	Bob Craig ..	A. D.	Dunstan Bros., Jeffcott
1099	Bob Simmer ..	6 P.	R. J. Darcy, Mooroopna
1087	Bobby	A. P.	G. Officer, Woolsthorpe
166	Bobniak ..	A. L.	H. F. Clarke, Miepoll
446	Bobs	A. D.	A. O. Allen, Murrayville
408	Bold Acton ..	A. D.	W. G. Burns, Lemon Springs
309	Bold Arthur ..	A. D.	C. H. Feldtmann, Major Plains
746	Bold Bill ..	5 P.	J. R. Morrison, Terang
740	Bold Boy ..	4 P.	N. A. Merryfull, Rushworth
841	Bold Briton ..	A. D.	R. N. Dunn, Rupanyup
209	Bold Captain ..	A. D.	C. B. Werner, Netherby
735	Bold Corriedale ..	3 D.	M. D. Fitzpatrick, Barraport West
451	Bold Dale ..	A. D.	J. Burdett, Ballarat
342	Bold Douglas ..	A. D.	R. Stewart, Barwite
490	Bold Drumcross ..	4 D.	C. C. Adkins, Arawatta
869	Bold Favorite ..	6 D.	A. White, Bridgewater
583	Bold Jack ..	3 D.	Jas. Mann, Ceres
935	Bold King ..	A. D.	J. Kenneally, Dandenong
241	Bold Mac ..	4 D.	T. Ford, Shepherds
103	Bold Pat ..	6 D.	F. J. Glen, Walpeup
631	Bold Print ..	3 D.	C. W. Curnow, Sea Lake
208	Bold Scott ..	A. D.	H. and L. Lear, Mitre
178	Bold Squire ..	A. D.	E. F. Schmidt, Kellalac
1077	Bold Success ..	A. D.	J. Rumbold, Laanecoorie
921	Bold Voyage ..	5 L.	G. McDonnell, Mt. Egerton
983	Bold Wallace ..	A. D	W. Wohlers, Pinnaroo
844	Bon Accord ..	A. D.	R. Brindley, Avondale
76	Bon Wickliffe ..	A. D.	Mrs. L. E. Allen, Beulah
457	Bona Vista ..	6 D.	C. R. McKenzie, Cressy
1093	Bonnie Baron ..	A. D.	R. N. Scott, Kongwak
365	Bonnie Caesar ..	A. L.	C. P. Campbell, Glenorchy
749	Bonnie Craig ..	3 D.	J. Madill, Undera
71	Bonnie Dignity ..	6 D.	J. L. Judd, Yanac
567	Bonnie Dundee ..	5 L.	W. H. Barmby, Yaapeet
838	Bonnie Knight ..	A. D.	A. D. McLennan, Derrinal
596	Bonnie Lad ..	5 D.	A. Gibbard, Vectis East
829	Bonnie Prince ..	4 D.	M. P. Cleary, Nooramunga
1030	Bonnie Prince Charles	3 D.	R. W. Dunn, Burrumbeet
310	Bonnie Salisbury	A. D.	C. H. Feldtmann, Major Plains
977	Bonnie Star ..	A. D.	E. S. Gillespie, Rockbank
554	Bonnies Pride ..	3 D.	Mrs. E. O'Brien, Tempy
438	Bonny Mac ..	A. D.	A. Walter, Glenthompson
597	Bonny View Star	3 D.	E. A. Kuchel, Murray Bridge
974	Boorongie Prince..	A. D.	L. J. Grant, Chinkapook
965	Boss	4 P.	S. Nield, Kyalite
209	Bouncer ..	3 D.	O. J. Norton, Melton
1037	Bower	6 L.	A. J. Peddle, North Fitzroy
226	Bowview Belmont	5 D.	Mrs. R. Cook, Thalia
1102	Braemore Baron...	4 D.	A. L. Young, Invergordon
868	Breastknot ..	A. D.	W. J. Moll, Dimboola
715	Brigham Boy ..	3 P.	J. L. Morrison, Boinka
789	Brigham Lad ..	4 P.	W. G. Pharaoh, Warragul
936	Bright Green ..	A. T.	J. O'Brien, Culgoa
138	Bright Star ..	A. D.	J. Walker, Corio
458	Bright Treasure ..	A. D.	A. E. Laurence, Bearie
242	Brilliant Crown ..	3 D.	H. Hehr, Epping
1092	Brilliant Jim ..	A. P.	R. N. Scott, Kongwak
1033	Brilliant Morn ...	A. D.	R. Crozier, South Morang
1060	Brilliant of Shetland Heights	5 P.	W. T. Mitchell, Lower Bethanga
15	Brilliant Stamp ..	3 D.	A. Stokes, Abbotsford
725	Brilliant Star ..	4 D.	J. King, Quambatook
77	Britannia ..	A. D.	C. S. Rodda, Warracknabeal
901	Britons Bold ..	A. D.	F. W. Lennecke, Detpa
570	Broadview Premier	4 D.	J. P. and C. Della, Lake Hindmarsh
611	Brockleigh Lad ..	3 D.	T. Dempsey, Morwell
295	Broughdoun Underslade	4 D.	J. Henderson, Baulkamaugh
452	Brown Abbey ..	A. L.	A. J. Glen, Birchip
1023	Brown Alexander	A. D.	A. Thompson, Werribee
598	Brown Dale ..	3 D.	Pitcher Bros., Tatyoon
951	Brunstane Duplicate	A. D.	J. M. Roger, Oberon, N.S.W.
700	Buchlyvie Bray ..	3 D.	J. H. Walder, Watchem
854	Buchlyvies Choice	A. D.	J. Dixon, Ullswater'
8	Bullara Bandsman	3 D.	R. Carroll, Perth
476	Buonacque Silver Morn	4 D.	Mrs. H. Wharton, Manangatang
653	Burnbank Footprint	4 D.	E. Mibus, Katyil
28	Burnfoot Style ..	A. D.	S. J. Lynn, Orbost
942	Burnside Baron ..	A. D.	G. Luckie, Springhurst
905	Burrow Voyage ..	A. L.	S. J. O'Brien, Strathmerton
1085	Bylands Treasure	3 D.	D. Crane, Nathalia
615	Byrnwoods Trimmer	4 D.	D. R. White, Janiember East
964	Canmore ..	4 D.	R. V. Ross, Holbrook, N.S.W.
179	Captain Black ..	A. T.	J. Flannagan, Omeo
925	Captain Douglas ..	A. D.	W. J. Ellison, Meringur
1100	Captain Llewellyn	A. L.	W. Horne and Son, Balmoral
550	Captain Lochiel ..	4 L.	J. Powling and Son, Terang
710	Captain Regulus ..	5 D.	Phillips Bros., Tatyoon
29	Captain Wood ..	A. L.	J. A. Menzel, Hamilton
971	Caravio	A. P.	E. McKoy, Wodonga West
1062	Carma Younger ..	A. P.	W. Younger, Hansonville
786	Carmyle ..	5 D.	R. V. Colliver, Cora Lynn
204	Carovita ..	A. P.	W. H. Jordon, Mirboo North
1042	Cave King ..	A. L.	H. Foster, Kerang
296	Cawdor Colonel ..	3 D.	W. J. Thornton, Baulkamaugh North
1017	Cedric	A. D.	W. Wyatt, Cowangie
397	Cedric Hero ..	A. D.	J. F. Harrington, Tempy
973	Centre Chief ..	4 D.	T. Dunne, Bambill
877	Centredale ..	A. D.	N. A. Proctor, Caulfield
614	Chief Alex ..	4 D.	H. Gittens, Bendigo
835	Chief Douglas ..	4 D.	R. S. Brunt, Kyabram
771	Civilian ..	4 T.	C. Jones, Moyhu
180	Clairs Pride ..	A. D.	A. Nunn, Birchip
267	Clan Rai ..	4 D.	H. B. Newell, Murra Warra
229	Clan Stewart ..	5 D.	T. G. Bartlett, Gerang Gerung
688	Clarkvale Squire ..	3 D.	J. H. Rogers, Dhurringile
529	Claymore Junior ..	A. P.	J. P. Hanrahan, Ballan
689	Cleveland Viceroy	4 D.	Craven Bros., Toolamba
727	Cliffdell	A. D.	W. G. Hall, Talbot
726	Clonmore Premier	3 D.	W. J. Clarke, Dunkeld
1089	Clyde	4 D.	G. Officer, Woolsthorpe
1082	Cobram Craig ..	4 D.	P. McCormack, Cobram
780	Cock o' the North	4 D.	N. C. Hodgson, Hedley
814	Collarado ..	5 L.	D. Shanaughan, Warracknabeal
792	Colonel Erskine ..	4 D.	Millard Bros., Dean's Marsh
411	Colonel Garfield ..	A. D.	Millard Bros., Dean's Marsh
97	Commodore ..	A. P.	Mrs. L. Nicol, Dandenong
58	Commodore Nut ..	A. P.	J. Manifold, Weerite
1015	Comrade ..	A. L.	R. Dunbar, Harston
105	Conqueror ..	A. D.	C. J. Bowd, Sea Lake
106	Cooring Dale ..	A. D.	A. N. Hamilton, Bannerton
343	Cooring Monarch..	A. D.	A. Murray, Coldstream
566	Corporal Mac ..	4 D.	T. Cleave, Leitchville
984	Count Bingen ..	A. L.	H. Bone, Kaniva
894	Count Zarynoff ..	A. D.	J. M. Egan, Bunding
10	Craig of Hazeldean	4 D.	J. L. Dishon, Stavely
797	Craigie Bold Venture	4 D.	A. Arnold, Warracknabeal
364	Craigie Lad ..	A. D.	T. McGrath, Minyip
508	Craigie Masterstroke	A. D.	A. Arnold, Werrigar East
578	Craigie McLennan	4 D.	C. Phillips, Hopetoun
1012	Craigie Onward ..	3 D.	J. M. Taylor, Shepparton
796	Craigie Refiner ..	4 D.	A. Arnold, Werrigar
1	Craigie Winalone	5 D.	J. Mills and Son, Finley, N.S.W.
820	Craigies Pride ..	4 D.	J. E. Huff, Hopetoun
344	Craigs Ideal ..	A. D.	Mrs. A. Trollop, Cope Cope
1105	Craigwillie of Bolobek	A. D.	W. Walter, Tatura

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
509	Crightons Tim ..	A. P.	S. A. Greaves, Narre Warren
346	Cruncher ..	A. D.	Sharp and Taylor, South Melbourne
72	Crystal Tide ..	A. D.	A. Dickins, Corowa
107	Culbo	A. P.	A. W. Thomson, Hamilton
1120	Cullodens Return	4 L.	Millard and Rogusch, Rainbow
1079	Cymbrel ..	A. L.	S. Hancock, Poowong
893	Cymro Harold ..	A. P.	E. J. Boyle, South Lillimur
886	Cyndette II. ..	A. P.	J. R. Shingles, Maffra
515	Dalcrombie ..	A. D.	J. H. Roberts, Lalbert
732	Dales Footprint ..	3 D.	J. W. McDougall, Katandra
1073	Dalla Derby ..	A. L.	F. W. Shillito, Yendon
1036	Dalla Direct ..	3 L.	D. Gonne, Ballarat
287	Dallawney Again..	3 D.	M. J. Hooper, Towaninnie
163	Dalmore Again ..	A. D.	L. Hill, Lake Bolac
345	Dalmore Dale ..	A. D.	Mrs. S. Trotman, Nyarrin
453	Dalmore Dan ..	A. D.	F. J. Matthews, Crowlands
413	Dalmores Pride ..	A. D.	A. B. Moyle, Yaapeet
409	Dalradient ..	A. D.	J. B. Ferguson, Waubra
1088	Dandy	A. P.	F. McCraw, Catani
207	Dandy Dick ..	A. P.	W. Hudson, Merbein West
414	Dandy Duke ..	A. P.	Kong Meng Bros., Longwood
430	Dandy Jim ..	A. P.	S. Fitzpatrick, Orford
937	Dandy Luck ..	A. P.	Mrs. M. L. Johnson, Doreen
431	Dans Design ..	A. L.	J. W. Turnbull, Mildura
36	Darlings Comet ..	A. D.	Brock Bros., Moe
1031	Dart	3 P.	P. L. Heenan, Coleraine
162	Dave Douglas ..	A. D.	Colbert Bros., Broughton
803	Defiance ..	3 D.	G. McQueen, Waubra
268	Dehlura Bankers Fortune	3 D.	B. Schultz, senr., Ni Ni Well
1022	Derby Childe ..	6 L.	L. J. King, Quambatook
1128	Derby Way ..	6 L.	W. J. McKay, Elsternwick
1003	Desert Pos ..	A. L.	L. Forster, Euroa
681	Device	5 L.	R. Smales, Irymple
766	Diamond Star ..	4 D.	H. Sunderman, Dawson
1110	Diblitz Minor of Shetland Heights	4 P.	R. J. Maclellan, South Yarra
44	Diblitz of Penniwells	A. P.	Mrs. D. Maclean, Yan Yean
347	Dimboola ..	A. T.	C. A. Rogers, Warrnambool
37	Dinna Forget ..	6 D.	Stepnell Bros., Scotsburn
1040	Direct Abdullah ..	A. L.	Mrs. E. C. Gibb, Moolap
888	Don Abbey ..	A. L.	E. Parish, Horsham
670	Don Alto ..	A. L.	G. Luckie, Springhurst
415	Don Salatis ..	A. T.	A. E. Bowman, Bethanga Park
398	Don Swift ..	A. L.	A. Harvey, Berriwillock
52	Donald Dale ..	4 D.	D. C. Greig, Melbourne
39	Donalds Best ..	A. D.	A. F. Downie, Donald
652	Donowellan Pioneer	3 D.	C. E. Raulston, Coleraine
144	Dorregal Chief ..	A. D.	D. Richardson, Ultima
524	Double Court ..	A. T.	Pierce and Wheeler, Towong
425	Douglas Chief ..	A. D.	E. G. Traeger, Merbein
294	Douglas Craig ..	3 D.	Berryman Bros., Moama, N.S.W.
684	Douglas Patrician	5 D.	T. A. Heard, Noradjuha
626	Drum Laddie ..	3 D.	M. F. Sullivan, Merrigum
594	Drumbaron ..	4 D.	P. J. Cleary, Avonmore
640	Drumcross Success	4 D.	L. R. Kossatz, Netherby
639	Drummer Boy ..	4 D.	S. A. Lacey, Boyeo
327	Drumores Pride ..	A. D.	G. L. Page, Torrita
546	Drumry Boy ..	3 D.	A. and E. Anderson, Yea
326	Drumry Equipment	A. D.	H. H. Shandley, Leongatha
525	Drumrys Pride ..	A. D.	J. Currie, Balmattum
916	Dublin Boy ..	3 L.	B. McManus, Green Lake
21	Duddon ..	A. T.	A. P. Wade, Glen Alvie
181	Duke	A. D.	L. G. Short, Craementon
473	Duke of Glenmore	4 D.	W. E. Maidment, Sandmount
911	Dukemore ..	A. D.	J. E. Maxwell, Hopetoun
78	Dunira James ..	A. D.	G. H. Allen, Beulah
595	Dunira Major ..	4 D.	G. H. Allen, Beulah
569	Dunlea Footprint	3 D.	R. Dunn, Rainbow
867	Dunure Blend ..	A. D.	J. Gull, Kenmare
699	Dunure Dale ..	5 D.	J. Boyle, Watchem
612	Dusky Dandy ..	3 P.	W. Bourke, Denison
243	Early Dale Hero ..	3 D.	J. P. Stratton, Perth
915	Eaton Headlight	A. D.	E. W. Schneider, Yulecart
906	Ebony Stamp ..	A. D.	W. J. Robinson, Truganina
872	Eclypse	A. D.	C. Hahnel, Walpeup
713	Eclypse of Lauriston	4 D.	H. R. Weir, Ouyen
847	El Dorado ..	A. T.	C. C. Hawker, Lillimur
244	Ellangowan ..	A. D.	W. Walter, Tatura
694	Ellerslie Dale ..	5 D.	P. T. Lee, Birchip
269	Ellerslie Mac ..	3 D.	G. Buckley, Wickliffe
514	Ellerslie Willie ..	6 D.	Gowanford Horse Club, Ultima
988	Emerson ..	A. T.	A. S. Blair, Watchem
245	Enfield Hero ..	5 D.	T. J. Opie, Kyneton
460	Enterprise ..	A. D.	C. H. Perkins, Rainbow
807	Ercildale Norval ..	3 D.	J. Henderson, Burrumbeet
574	Eskdale Nugget ..	5 D.	T. Ley, Eskdale
580	Ettrick Bankdraft	4 D.	J. Turnbull, Bungowannah, N.S.W.
182	Ettrick Dale ..	A. D.	J. Fuzzard, Numurkah
17	Everlasting Dale	A. D.	A. E. Cox, Alma
785	Everlasting Simon	4 D.	B. McIlwraith, Myrniong
167	Excelsis Regulus	A. D.	A. H. Mills, Finley
772	Exeter	4 T.	E. A. Underwood, Melbourne
247	Fabric Bold ..	3 D.	Colli Creek Estate, Willow Tree, N.S.W.
248	Fabric Still ..	4 D.	E. McKoy, Wodonga
416	Famous Voyage ..	A. D.	P. A. Beaumont, Ouyen
402	Factotum ..	A. D.	J. Richardson, Glenthompson
638	Farleton Bold ..	3 D.	Dufty Bros., Lorquon
914	Farleton Bold Record	A. D.	R. Crozier, South Morang
680	Farleton Fabric ..	3 D.	J. T. Watkins, Euroa
270	Farleton Seawave	3 D.	H. E. Poulton, Hopetoun
328	Farmers Pride ..	A. D.	W. Dixon, Phillip Island
1098	Favourite Lad ..	A. D.	C. E. Gomm, Somerville
902	Fenwicks Pride ..	A. D.	O. Bassett, Sandmount
777	Fernbank Craigend	4 D.	W. Elphinstone, Millgrove
742	Fernbank Nether Craig	4 D.	H. C. Younger, Greta
606	Fighting Top ..	6 T.	T. Robertson, Kirkstall
16	Fine View Baron Royal	A. D.	W. H. Gibbons, Galah
897	Fine View Elect ..	6 D.	T. Kelly, Minyip
377	Fine View Favour	A. D.	E. Hehr, Wollert
183	Fine View Premier	A. D.	K. Cameron, Warracknabeal
79	Five View Print ..	A. D.	G. E. Chandler, Hamilton
66	Fine View Squire	A. D.	J. G. Mitchell, Melbourne
475	Finley Direct ..	A. L.	H. S. Minchin, Picola
997	First Voyage ..	A. L.	W. J. Minns, Melton
952	Flash Dunure ..	A. D.	J. Bagnell, Mologa
1055	Flash of the North	6 D.	P. Bagnell, Mologa
744	Flash Timekeeper	4 D.	Mrs. T. Clarke, Laceby South
1096	Flash Trust ..	A. L.	G. Dobson, Warracknabeal
426	Flash Voyage ..	A. L.	C. T. Evans, Rathscar
199	Flashlight ..	5 D.	C. R. Rigby, Hamilton
844	Flashwood ..	6 D.	J. Parson, Keith, S.A.
232	Fleurason ..	3 T.	E. McDonald, Dimboola
609	Fleurist King ..	3 T.	J. R. Winterbotton, Mincha
861	Fleuriste ..	A. T.	A. Brown, Rupanyup
1115	Fred La ..	A. L.	P. J. Thompson, Krowera
170	Full Power ..	A. T.	W. Fisher, Rainbow
171	Gallant Jock ..	A. D.	S. L. Gordon, Lismore
30	Gallant Kerrston..	A. D.	W. J. Beanham, Lilliput
140	Gallant Lad ..	A. D.	W. Starick, Murtoa
149	Gallant Macarthur	A. D.	T. Nankervis, Diggora South
500	Game Boy ..	3 D.	F. and W. Adler Murtoa
839	Gay Bold ..	A. D.	Amarant Bros., Landsborough
196	Gay Cavalier ..	3 D.	P. J. Vivian, Kaniva
1027	Gay Serenader ..	A. T.	W. Mallinson, Stoneyford
662	Gaywell ..	4 D.	H. G. Burge, Landsborough
967	General Harvey ..	A. D.	H. E. Byron, Woomelang
450	General Keith ..	A. D.	J. E. Farnell, Myer's Flat
120	General Voyage ..	A. L.	N. Hueston, Coburg
80	Gillies Son ..	A. D.	Boyd Bros., Koroit
800	Gillingall ..	4 T.	J. Prankerd, Gillingall
22	Glen Ayr ..	A. D.	G. Peters, Eskdale
665	Glen Baron Belmont	5 D.	T. Gilcrist, Rutherglen
599	Glen Bower Bounty	3 D.	W. Heard, Noradjuha
1061	Glen Cairn ..	A. D.	W. T. Mitchell, Lower Bethanga
518	Glen Isla ..	A. D.	F. Perry, Corack
1095	Glen Major McKie	6 D.	J. W. McDougall, Katandra
271	Glen Newton Bold Dignity	3 D.	G. F. Schache, Murtoa
492	Glenbower Chief ..	3 D.	S. G. Hayward, North Wangaratta
788	Glenburn Laddie	4 D.	Erbs Bros., Trafalgar
148	Glencairn Rob Roy	A. D.	W. and C. Oliver, Diggora West
184	Glengyle ..	A. P.	C. A. Taylor, Rutherglen
1078	Glenmere Craig ..	6 D.	J. Rumbold, Laanecoorie
748	Glenrowan Lowland Lad	3 D.	J. M. Phillipe, Congupna Road

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

Stallion Register 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
530	Gobbler ..	A. D.	M. J. Cahill, Mannibadar
18	Gold Brew ..	A. T.	W. J. Clarke, Dunkeld
880	Goldenwood ..	A. L.	Mrs. G. Freeman, Tatura
624	Gortland ..	A. T.	Police Department, Melbourne
249	Gowan Premier ..	4 D.	C. Mitchell, Leongatha
108	Graculus ..	A. T.	S. Loveridge, Corowa
706	Grand Chimes ..	3 L.	G. Riddington, Yackandandah
94	Grand Derby ..	A. L.	S. Black, Branxholme
564	Grand Harold ..	3 L.	A. Free, Leitchville
853	Grand March ..	A. D.	A. Hill, Powlett Plains
1057	Grand Opera ..	A. L.	J. J. Guidice, Kangaroo Flat
556	Grangedale ..	3 D.	Mrs. A. Holland, Patchewollock
678	Grattan ..	3 L.	A. D. Thompson, Wyuna
659	Great Alex ..	3 D.	Mrs. M. Molloy, Towaninnie
311	Great Derby ..	A. L.	L. W. Crapper, Neilborough
784	Great Persuasian	4 D.	T. Sutherland, Sulky
11	Grennan Le Crystal	4 D.	R. Carroll, Perth
686	Gum Park Desire	4 D.	Redford and Sons, Gymbowen
825	Gwalia	3 P.	E. McKoy, Wodonga
920	Hampton Ben ..	A. D.	J. M. Peters, Warracknabeal
503	Hard Times ..	A. D.	D. Murphy, Rochester
903	Harold Pronto ..	A. L.	C. S. Walker, Swan Hill
367	Harry Picture ..	6 L.	Mrs. A. Egan, Rochester
645	Hawkesdale Defiance	3 D.	C. C. Hawker, Lillimur
272	Hazeldene ..	4 D.	H. McGregor, Kaniva
122	Heather Jock ..	A. D.	H. Hayward, Skipton
1018	Heather Mac ..	A. D.	Fuller and Sprigg, Mitre
474	Heirloom ..	3 D.	E. and C. Powell, Teddywaddy
510	Herdsmans Treasure	A. D.	W. F. Irvine, Invergordon
671	Hero Bold ..	A. D.	A. Gillis, Essendon
895	Heros Lad ..	A. D.	W. Fowler, Kerang
439	Herward ..	A. D.	H. Wright, Barmah East
384	High Honor ..	A. D.	D. Holcan, St. James
300	Highland Bow ..	3 D.	J. Cunning, Beauchamp
658	Hill Park Masterpiece	4 D.	A. W. Watson, Nullawil
672	Hill Park Masterstroke	4 D.	R. J. Jones, Maryborough
753	Hill View Rising Star	5 D.	J. J. Gleeson, Southern Cross
610	Hill View Rising Sun	5 D.	W. A. McClellan, Bungaree
427	Hillhead Knight ..	A. D.	A. N. Flavel, Detpa
45	Holton	A. D.	Gaulke Bros., Tarranyurk
466	Homeleigh Craig Royal	3 D.	F. H. Doyle, Willow Tree, N.S.W.
1028	Homeward Bound	A. L.	D. and J. McCamey, Tinamba
150	Honest Mac ..	6 D.	O. R. Poole, Fenton's Creek
1067	Hotspur ..	A. P.	C. Lippiatt, Scotsburn
989	Horoscope ..	6 D.	F. Baker, Jung
189	Huntly Lad ..	3 D.	S. C. Mott, Lascelles
280	Huon Marvin ..	6 L.	F. G. Missen, Rockbank
848	Ian Again ..	A. D.	C. C. Hawker, Lillimur
81	Ideal Craigie ..	6 D.	C. and N. Ferrier, Birchip
576	Ideal Flashday ..	5 D.	E. M. Thomas, Hopetoun
123	Ideal Roy ..	6 D.	P. C. Cunnington, Bamawm
634	Ideal Slade ..	4 D.	S. R. Dalton, Tempy
799	Ideal Viceroyal ..	5 D.	C. and P. McNaughton, Cavendish
1084	Ignition ..	3 L.	D. L. Goodwin, Little River
251	Inglemere Sunbeam	3 D.	F. H. Francis, Maitland, S.A.
552	Inspirer ..	4 T.	G. Smith, Newstead
531	Interest ..	A. P.	A. Kennedy, Arcadia
124	Irish Boy ..	A. D.	E. Molloy, Towaninnie
192	Jack Briton ..	3 D.	R. P. Nuske, Lorquon
329	Jack Craig ..	A. D.	V. Condon, Toolern Vale
1016	Jack McKinney ..	A. L.	D. Moriarty, Wee Wee Rup
1121	Jack Marsh ..	A. T.	J. F. McDonald, Bacchus Marsh
142	Jack o' Diamonds	A. L.	H. L. Ferry, Mt. Moriac
845	Jack Tar ..	A. D.	Dufty and McIntosh, Mt. Elgin
851	Jackie Coogan ..	A. L.	S. Curran, Ararat
1124	Jester of Shetland Heights	A. P.	Mrs. M. Small, San Remo
657	Jock	3 D.	Mrs. M. Molloy, Towaninnie
996	Jock Cedric ..	A. D.	M. McLeod, Condah Swamp
714	Jock McGregor ..	4 D.	Latta and Smith, Walpeup
330	John Brigham Last	A. P.	G. N. Buckley, Wickliffe
883	John Douglas ..	A. D.	A. Gordon, Broughton
454	John Gartland ..	6 D.	G. T. Deckert, Kinimakatka
542	John Shepherd ..	A. D.	A. F. Dahlenburg, Salisbury
677	Jokers Pride ..	A. P.	C. Bassett Smith, Kyabram
758	Jolly Clouglockelty	3 D.	H. Allez, MacIntosh
298	Jupiter	3 D.	A. Webster, Chinkapook
881	Justice	A. D.	J. Christie, Bulga
719	Jutland Chief ..	5 D.	R. Stanbury, Karawinna
739	Kain Bob ..	3 P.	B. O'Sullivan, Wattle Park
252	Kairaki Baronet ..	3 D.	H. L. Crichton, Young, N.S.W.
601	Kardella Imprint	4 D.	T. Maddern and Sons, Blackheath
1066	Kelm Pride ..	A. D.	C. Lippiatt, Scotsburn
143	Kelms Prince ..	A. D.	Nicoll Bros., Hoddle Range
331	Kelmscott II. ..	A. D.	A. R. Yard, Murrayville
760	Kelso Commander	3 D.	F. Hunt, Cosgrove South
392	Kelso Ideal ..	A. D.	E. R. Prater, Berriwillock
679	Kelso Marquis ..	3 D.	A. H. Rathjen, Woodglen
747	Kelso Prince ..	3 D.	Starritt Bros., North-west Mooroopna
136	Kelso Sensation ..	6 D.	Starritt Bros., North-west Mooroopna
391	Kens Pride ..	A. P.	H. McMeekin, Kyneton
253	Kenwyn Elect ..	3 D.	Lansdowne Pastoral Co., Melbourne
51	Kerrick ..	5 D.	W. J. Westerndorf and Sons, Dimboola
169	Kerrsdale ..	A. D.	Ballarat Trustees, Executors, and Agency Co., Melbourne
348	Killawney ..	A. D.	W. Bicknell, Archdale
887	Kilty	A. L.	Langi Kal Kal Estate, Trawalla
125	King Ballance ..	A. D.	F. H. Kennett, Kaniva
501	King Billy ..	A. D.	J. I. Collins, Banyan
433	King Cal ..	A. T.	D. C. Campbell, Merino
151	King Clyde ..	A. D.	R. C. Dennis, Woodglen
805	King Dooley ..	3 L.	J. R. Bruce, Mario
231	King Douglas ..	5 D.	G. Melke, Dimboola
1108	King Favour ..	3 D.	C. H. Probert, Dadswell's Bridge
59	King Heedless ..	A. T.	J. Manifold, Weerite
757	King Herod ..	5 D.	Gregory and Newton, Moama, N.S.W.
543	King John ..	A. D.	J. D. Potter, Green's Creek
517	King of the Roses	A. D.	M. McGillivray, Bald Rock
401	Kings Own ..	A. D.	R. E. Nichols, Merbein West
104	Kings Pride ..	A. D.	J. W. Bartlett, Stratford
995	Kings Prize ..	A. D.	J. L. McErvale, Brewster
141	Kings Star ..	6 D.	Boord Bros., Yarrara
38	Kinlock Hero ..	A. D.	F. H. Baker, Jung
1014	Korongah Bar None	3 D.	J. C. Whitehead, Minhamite
668	Korongah Bold Eric	4 D.	W. R. Hines, Donald
479	Korongah Bold Kerrston	4 D.	A. F. Dahlenburg, Nhill
675	Korongah Bold Master	4 D.	W. Tucker, Drung Drung
498	Korongah Bold Renown	3 D.	G. A. Konig, Jung
443	Korongah Craigwillie	A. D.	A. W. Hendy, Cowangie
676	Korongah Glen Arthur	3 D.	G. Oxley, Gre Gre North
547	Kyonga King ..	3 L.	J. Ryan, Avoca
1006	Lackamore ..	A. L.	W. R. Cahill, Kyabram
586	Laird of Avon ..	3 D.	J. H. Roberts, Lalbert
69	Lancashire Chief ..	A. D.	J. Wisneske, Linga
852	Lancashire Lad ..	A. D.	J. W. Woodfine, Ararat
919	Langdale ..	A. D.	M. Donnellan, Jeffcott North
1068	Lansdale Again ..	A. D.	A. Carstensen, Woodside
386	Lansdale Everest ..	A. D.	H. R. Richards, Trawool
991	Largo	5 D.	W. G. Wilkinson, Yarrawonga
217	Late Fashion ..	5 D.	C. Summerhayes, Boigbeat
562	Lavereen Monarch	3 D.	J. Fehring, Horfield
312	Lavereen Prince Buchlyvie	A. D.	A. L. Hamilton, Corryong
67	Lawrence Drew ..	A. D.	J. C. Bastow, Inglewood
804	Le Grand Footsure	3 D.	J. A. Forbes, Streatham
146	Leapfrog ..	A. L.	F. Funcke, Laen
390	Lemon Grass Lieutenant	A. D.	McQueen Bros., Waubra
1064	Leonard Dale ..	A. D.	D. McDonald, Myrniong
649	Lexel Lea Norval	3 D.	W. A. Wright, St. Arnaud
559	Lilydale ..	4 D.	J. M. White, Yaapeet
82	Liston Duke ..	6 D.	C. S. Rodda, Warracknabeal
385	Little Brigham ..	A. P.	W. I. Greenaway, Beazley's Bridge
399	Little Comet ..	A. P.	F. Hoystead, Wangaratta

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
185	Little Eumarrah ..	A. P.	R. Painter, Leaghur
1065	Little Leo ..	A. P.	Mrs. A. Bray, Croydon
1076	Little Ned ..	4 P.	T. Humbert, Prairie
418	Little Welshman	A. P.	J. Cameron, Timor
582	Loch Garry Craigie	4 D.	McDonald Bros., Rochester
1072	Lochaber ..	A. L.	J. H. Nicholson, Addington
812	Lochend ..	A. P.	H. Coverdale, Bairnsdale
205	Loddon Lea Sundial	4 D.	R. McDonald, Mannerim
802	Loddon View General Nat	3 D.	J. B. Ferguson, Waubra
683	Lone Park Hero ..	3 D.	H. Oliver, Duchembegarra
273	Lone Park Scotch Dale	5 D.	H. Wegner, Laura, S.A.
1123	Lord Aldie ..	A. D.	R. T. Redenbach, Tambo Upper
1052	Lord Allen ..	A. D.	T. Bull, Chillingollah
990	Lord Allenby ..	A. D.	W. G. Oxley, junr., Gre Gre North
250	Lord Avon ..	4 D.	J. Foley, Llowalong
532	Lord Belmont ..	A. D.	W. K. Stokes, Riddell
623	Lord Cedric ..	3 D.	Jos. Hegarty, Stratton
186	Lord Cedric ..	A. D.	W. J. Currell, Cowley's Creek
627	Lord Dundonald ..	4 D.	Mrs. A. V. Shard, Ouyen
373	Lord Fabric ..	A. D.	A. D. Thompson, Wyuna
602	Lord Marmo ..	4 D.	L. Midgley, Minyip
219	Lord Marvin ..	5 L.	C. Adcock, Watchupga
332	Lord Moray ..	A. D.	H. Crump, Koyuga
126	Lord Remarco ..	A. T.	Mrs. B. L. Mulraney, Kaniva
187	Lord Threave ..	A. D.	O. Gaulke, Tarranyurk
1090	Lowlands Marshall	A. D.	T. R. Jenkyn, Baddaginnie
840	Lucky Boy ..	A. D.	Graham Bros., McKenzie's Flat
1043	Lue Ribbons ..	A. L.	A. McLeod, Wallaloo
444	Lymm Loden ..	A. D.	A. F. Emery, Benalla
303	Lymm Truffle II.	A. D.	J. T. Buckley, Wolseley, S.A.
890	Lyndale ..	A. D.	W. Rutherford, Nandaly
190	Lyndale II. ..	3 D.	P. Dickson, Nandaly
417	Lyndhurst ..	A. D.	A. J. Perry, Hopetoun
1106	Lyndhurst Craigie	6 D.	H. L. Walter, Tatura
486	Lyndhurst Master	3 D.	Sieber Bros., Mulcra
497	Lyndhurst Master Craig	4 D.	J. F. Delahunty, Murtoa
794	Lyndhurst Oarsman	5 D.	R. H. Larcombe, Mt. Moriac
46	Lyndhurst Radiant	A. D.	W. Robinson, Armstrong
752	Mac	4 D.	E. O. Manuel, Kerang
555	Macs Pride ..	4 D.	Miss E. D. Hymers, Tempy
790	Macs Worthy ..	5 D.	E. Wilson, Llanelly
520	McKenna of Shetland Heights	A. P.	W. E. Clinton, Heidelberg
966	McLeish ..	A. D.	F. Handley, Carrajung South
544	Macedon Hero ..	A. D.	McKenzie and Masebrandt, Locksley
1019	Magic Railway ..	A. P.	W. A. Beard, Benalla
349	Major Again ..	A. D.	H. Brown, Minyip
930	Major Clyde ..	A. D.	M. J. Grogan, Donald
709	Major Dalmore ..	3 D.	F. Alford, Tulillah
1129	Major Douglas ..	A. D.	J. W. Scott, Katyil
127	Major Dundonald	6 D.	A. McInnes, South Bundalong
721	Major Lee ..	4 D.	A. Tepper, Minyip
350	Major Lee ..	A. D.	E. V. Menzel, Bellbrae
1044	Major Mac ..	A. D.	H. Henderson, Barraport
333	Major Willie ..	A. D.	J. H. Reichelt, Ni Ni Well
1063	Mallee Chevalier ..	A. D.	J. Cobain, junr., Sale
1083	Malt Lawn ..	A. L.	J. J. Sherry, Morwell
1086	Maori Jack ..	A. D.	A. Potter, Naroghid
625	Marbell of Shetland Heights	3 P.	Mrs. D. Maclean, Yan Yean
938	Marcellus II. ..	A. D.	Forrest Bros., Orford
793	March	4 L.	J. Kinnimouth, Winchelsea
870	Marchfield ..	A. D.	J. Skelly, Echuca
313	Marcus Junior ..	A. L.	Blair Bros., Lara
1045	Mark Hazel ..	A. P.	J. McMahon, Smoko
1053	Mark Twain ..	A. D.	Mrs. E. Smith, Lalbert
900	Marnoo Prince ..	3 D.	White and Sudholz, Horsham
811	Marojo	3 L.	R. T. Johnston, Tongio
1111	Marvel of Earlshall	A. P.	R. J. Maclellan, South Yarra
818	Master Bob ..	3 P.	A. J. Trask, Irrewarra
128	Master Brook ..	A. L.	A. Beattie, Tungamah
83	Master Comedy ..	A. P.	A. D. Thompson, Wyuna
770	Masters Pride ..	4 D.	R. J. McPherson, junr., Brim
351	Masterdale ..	A. D.	F. F. Kerr, Yeoburn East
352	Masterpiece ..	A. D.	J. E. Farnell, Myer's Flat
455	Masterstroke ..	6 D.	H. Parish, Winchelsea
655	Mastertone ..	5 D.	W. H. Mitchell, Sandford
664	Maydale Christie	4 D.	D. King and Sons, Rutherglen
591	Mayfield Stamp ..	3 D.	D. I. Trewick, Elmore
899	Mayville Bankers Plaid	3 D.	W. B. Cramin, Tanunda
12	Mayville Baronet Dignity	3 D.	Mrs. E. J. Ferry, Mt. Moriac
769	Melrock Flash Viceroy	5 D.	Todd Bros., Beulah
560	Melrock Prince Dale	A. D.	Ferrier Bros., Birchip
419	Melrock Roy Dale	A. D.	Todd Bros., Beulah
587	Meltons Trust ..	4 T.	Jas. Moran, Watchem
551	Merry Prince ..	4 D.	G. Pearse, Nyah
353	Merry Prince ..	A. D.	B. Rogers, Mepunga East
637	Micky Mouse of Fenwick	3 P.	Berlund and Son, Netherby
254	Middlerigg King ..	A. D.	P. G. Weaver, Boort
863	Midnight Voyage ..	A. L.	A. Hattwell, McEvoy's
898	Mikado	A. L.	A. G. Turnbull, Coleraine
434	Milton Huon ..	A. L.	C. E. Burkinshaw, Wareek
152	Miniature III. ..	A. P.	T. Robertson, Macarthur
304	Model Bute ..	A. D.	Hansen Bros., Barnawartha
533	Mont Harold ..	A. L.	Mrs. M. Canning, Mildura
1107	Monte	4 D.	H. Nixon, Berriwillock
389	Montrose ..	A. D.	E. D. Watson, Wycheproof
1041	Montys Treasure	3 D.	Wisely Bros., Tallygaroopna
499	Moorabool Pride ..	5 P.	J. S. Thompson, Little River
461	Moredun Baron ..	A. D.	Mrs. F. Tilley, Port Fairy
605	Moredun Flash Dell	3 D.	H. Pearson, Horsham
334	Moredun Ranger	A. D.	W. Hodges, Macarthur
622	Morning Prince ..	4 D.	J. Draper, Yan Yean
1118	Morocco Boy ..	3 D.	G. A. Hoffman, Vectis
369	Morocco Lad ..	A. D.	H. A. Arnold, Werrigar East
275	Moroccos Pride ..	3 D.	T. McManus, Pimpinio
1026	Mossbank Mac ..	3 D.	A. Stokes, Abbotsford
255	Mossdale Sensation	4 D.	W. Pizer, Kyneton
5	Mountain Hero ..	4 D.	Mrs. F. A. Foster, Keysborough
47	Moving Picture ..	A. L.	Dyke Bros., Gre Gre
703	Mulcras Pride ..	3 D.	J. H. T. Beck, Mulcra
823	Muluka King ..	5 L.	W. G. Thorburn, Boolarra
739	Mungo Master ..	3 D.	B. C. Mills, Yarra Glen
1056	Napoleon ..	A. D.	S. J. Lewis, Baringhup
636	Naseby Briton ..	3 D.	A. C. and A. Dufty, Lorquon West
84	Naseby Flashmore	6 D.	E. F. Hancock, Aubrey
1035	Native Prince ..	A. L.	H. E. Ogden, Simmie
801	Netherha Drew ..	3 D.	J. B. Ferguson, Waubra
590	Netherha Factor ..	4 D.	S. Tuohey, Colbinabbin
1009	Netherall ..	A. D.	J. Allen, Wycheproof
963	Netherly Norman	3 D.	J. M. Smith, Melbourne
276	Netherwood Elect	3 D.	S. E. Kent, Sheep Hills
1021	New Derby ..	A. L.	L. J. King, Quambatook
962	New Globe ..	3 L.	W. McKay, Elsternwick
129	Newfields Pride ..	A. D.	R. J. Baldwin, Gre Gre South
109	Newton Banks ..	A. D.	J. R. Morrison, Wooriwyrite
751	Newton Lad ..	4 D.	F. W. Murphy, Murphy's Lake
600	Newton Style ..	A. D.	C. Graham, Neerim
987	Newtons Moddle ..	A. D.	C. W. McClay, Lake Boga
534	Newtons Pride ..	A. D.	G. Crabbe, Colac
577	Nilpena ..	4 T.	F. C. Coy, Lismore
130	Nimitybelle Mac ..	6 D.	H. Chessals, Youanmite
859	Nivek	6 P.	J. Carrucan, Nagambie
314	Non Pariel ..	A. D.	J. Roberts, Calder's Bag
621	Noralunga Royal Slade	4 D.	A. Kellet, Melbourne
698	Normason ..	3 L.	J. B. Swanson, Litchfield
204	Norseman Laddie	3 D.	A. H. Hooper, Goorambat
768	Northern Hero ..	3 D.	D. G. Ryan, Roseberry
822	Norvals Elect ..	4 D.	W. and L. Oliver, Diggora West
445	Nutshell ..	A. P.	Miss D. Robertson, Hamilton
948	Ngaio Dennis ..	3 D.	McCluskey and Jackson, Strathmerton
767	Nyora Noble ..	3 D.	S. Waters, Corryong
934	Oak Flat Footprint	3 D.	H. P. Chapman, Hoyleton, S.A.
230	Oakdale Dignity ..	4 D.	Stephen Bros., Wail
315	Oaklyn Mac ..	A. D.	R. C. Payne, Narioka
738	Oaklyn Strivers Mac	3 D.	T. Wallbridge Pty. Ltd., Somerton
193	Oarsman ..	4 D.	T. Parker, Pepper's Plains

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

Stallion Register 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
608	Ochertyre Widgiewa	4 D.	D. Ervin, Central Mologa
885	Onward ..	A. D.	W. Bean, Sale
1050	Onward Baron Belmont	A. D.	J. F. Wells, Kancoona
904	Onward Star ..	A. D.	R. Williams, Dunbulbalane
286	Oora Park Onward	4 D.	D. Chisholm, Swan Hill
1051	Opera Boy ..	A. L.	J. Guidice, Kangaroo Flat
545	Oscar Siam ..	A. L.	Bowland Bros., Echuca
1007	Othon	A. P.	P. Peters, Tungamah
956	Overdue ..	4 D.	T. Bagnell, Yarrawalla
198	Overland ..	4 D.	F. A. Tonissan, Moutajup
85	Overslade ..	A. D.	C. S. Rodda, Warracknabeal
909	Oxford	A. D.	S. and W. Capron, Lethbridge
783	Parkdell ..	3 D.	A. Stokes, Abbotsford
663	Parkview Bon Tide	3 D.	F. Baker, Springhurst
222	Parlewidgee Chevelier	3 D.	J. L. Arthur, Wootong Vale
277	Parlewidgee Freestep	3 D.	J. M. Hart, Anama, S.A.
654	Pat Holton ..	3 D.	F. J. Koch, Henty
1011	Patrician Craig ..	A. D.	W. J. Vallance, Tempy
528	Patriotic ..	A. D.	C. Carra, Hopetoun
939	Patrus	A. T.	O'Brien and Nolan, Culgoa
60	Pearlyn ..	A. L.	F. W. Bowden, Won Wron
388	Pedlar	A. D.	McQueen Bros., Waubra
808	Pedro Chief ..	5 L.	A. D. McLennan, Derrinal
756	Pentre Auchenchester	3 D.	B. Vagg, Moama, N.S.W.
535	Periscope ..	A. L.	W. Hansford, Wycheproof
292	Peter Pan ..	3 P.	J. K. Allen, Numurkah
456	Peterdale ..	5 D.	J. H. Walder, Watchem
110	Pettadale ..	A. D.	P. B. Malone, Leichardt
482	Phil	3 D.	E. J. Sutton, Boigbeat
278	Pine Grove Radiance	3 D.	H. McGregor, Kaniva
228	Pineholm Admiral	3 D.	W. and T. Albrecht, Gerang
644	Pineholm Baron ..	4 D.	D. L. Norman, Kaniva
782	Pine Lea Belmont Print	5 D.	Sewell Bros., Smeaton
467	Pine Lodge William Chief	3 D.	E. Hodges, Parkes, N.S.W.
781	Pine Park Premier	4 D.	Cantwell Bros., Meeniyan
293	Pine Vale Douglas	3 D.	A. V. Bond, Yinnar
949	Pine View Glenroy	3 D.	W. H. Penaluna, Boolarra
366	Playfair ..	A. D.	F. Roberts, Charlton
297	Pocket Edition ..	A. P.	Mrs. T. M. Clark, Laceby South
376	Poilu	A. P.	Cross Bros., Minimay
488	Ponto	3 P.	J. P. O'Keefe, Russell's Creek
718	Post Boy ..	5 D.	B. Bailey, Werrimull
383	Predomino ..	6 D.	C. Kelly and Co., Caramut
816	Premier Footprint	6 D.	J. Tweddle, Murchison East
944	Premier Mark ..	6 D.	McDonald Bros., Mortlake
496	Premier Prince ..	4 D.	H. A. Sudholz, Murtoa
172	Present ..	A. P.	W. H. Oats, Mansfield
432	Pride Darnley ..	A. D.	H. A. Boschert, Tempy
961	Pride of Didyme ..	4 P.	G. Brough, Cheltenham
86	Pride of the Lake	A. T.	R. F. Blake, Green Lake
731	Prince Adrian ..	4 D.	P. J. Ryan, Dookie
291	Prince Craig ..	3 D.	A. Stokes, Abbotsford
305	Prince Dale ..	A. D.	J. Downey and Son, Wallace
630	Prince Dignity ..	5 D.	J. V. Haggblom, Sea Lake
705	Prince Douglas ..	3 D.	A. and J. Barton, Taplan, S.A.
1081	Prince Ecuador ..	A. T.	F. Hender, Broomfield
912	Prince Fabric ..	4 D.	Cockayne and Peterson, Walliston
682	Prince Gay ..	5 D.	P. D. Richards, Cramenton
1122	Prince Harold ..	A. P.	Mrs. M. E. Robertson, Wallacedale
218	Prince Imperial ..	4 D.	A. Collins, Watchupga
180	Prince McQuaid ..	3 D.	G. A. Anderson, Lascelles
161	Prince Wallace ..	6 D.	J. Pole, Nullawil
873	Prince Wigton ..	A. D.	W. Studman, Bairnsdale
908	Puzzler	3 P.	P. Holman, Warragul
435	Quarrington Lad	A. D.	W. Filby, Kamarooka East
111	Quattas Belmont ..	A. D.	M. Linsday, Baranduda
216	Radiant Drumcross	3 D.	Vallance Bros., Nullawil
585	Radiola ..	3 D.	— Kelly, Culgoa
441	Rafa	6 P.	A. M. Pearson, Omeo
720	Ranfurlys Pride ..	5 D.	G. Stone, Daalka
629	Ranor	4 L.	J. V. Haggblom, Sea Lake
48	Raseel	A. Arab	Mrs. A. D. Maclean, Yan Yean
23	Real O.K. ..	A. D.	J. Crilly, Carag Carag
449	Rear Admiral ..	A. L.	H. C. Baker, Stanhope
495	Recompense ..	4 D.	F. H. Baker, Jung
986	Red Lion ..	A. P.	J. W. Ewing, Penshurst
465	Referee Again ..	3 D.	Mrs. A. Sanders, Miram
679	Reflection ..	4 D.	J. Burns, Euroa
256	Reflector ..	3 D.	Dyke Bros., Gre Gre
927	Resolution ..	A. D.	J. V. Trethowan, Rockbank
1045	Rexdale ..	6 D.	Mrs. H. B. Cannard, Lascelles
581	Regal George ..	3 D.	A. Stokes, Abbotsford
139	Regal Hiawatha ..	A. D.	I. Lees, Campbelltown
448	Review	A. D.	A. E. Barbary, Woomelang
958	Right Dale ..	A. L.	J. G. Graves, Mansfield
526	Rightway ..	A. L.	G. H. Mitchell, Speed
813	Rising Dawn ..	4 D.	E. Ervin, Brim
374	Rising Sun ..	A. D.	J. O'Bree, Piangil
697	Riverdale ..	4 D.	A. C. Walder, Watchem
836	Riviera	A. T.	A. Allison, Moonee Ponds
960	Rob Roy Black Laddie	4 P.	W. C. Clinton, Heidelberg
892	Robert Bruce ..	A. D.	H. Gregerson, Benalla
225	Robert Downs ..	3 L.	T. Clark, Wycheproof
724	Robin Adair ..	4 D.	H. Gordon, Willaura
112	Rocket	A. P.	A. W. Thomson, Hamilton
1046	Roma Dale ..	A. D.	Mrs. K. V. Kendall, Charlton
1047	Royal Belmont ..	A. D.	W. A. Creighton, Molesworth
61	Rosalinds Pride ..	6 D.	G. F. Coles, Swan Hill
702	Rosebrae Reflector	3 D.	D. M. Meagher, Murrayville
31	Rosedale I. ..	A. D.	G. T. Werner, Jeparit
258	Rosedale Invincible	3 D.	J. N. Fraser, Deniliquin, N.S.W.
202	Roseneath Ivan ..	4 D.	Kronborg and Carless, Thoona
775	Roseviers Master Dale	3 D.	J. McGee, Beulah
950	Rossendale ..	5 P.	E. Allen, Ondit
871	Royal	A. D.	Byron Bros., Stawell
354	Royal Bellman ..	A. D.	A. A. Johns, Horsham
224	Royal Bold ..	4 D.	E. McNaughton, Wycheproof
978	Royal Brigham ..	A. P.	Hinkley and Son, Warrion
164	Royal Captain ..	6 D.	G. H. Nunn, Tiega
992	Royal Castle ..	3 D.	C. Hawker, Lillimur
730	Royal Chief ..	3 D.	W. Morey, Yabba North
407	Royal Chief ..	A. D.	B. Mulraney, Kaniva
1094	Royal Comedy ..	A. T.	E. C. Amor, Yarram
764	Royal Dale ..	3 D.	P. B. Malone, Leichardt
153	Royal Dale ..	A. D.	L. Hill, Lake Bolac
62	Royal Dale ..	A. D.	C. Fuller, Linga
214	Royal Douglas ..	5 D.	Voigt Bros., Nhill
643	Royal Enterprise ..	5 D.	G. H. Powell, Lillimur
1032	Royal Escort ..	3 L.	Coe Bros., Coleraine
494	Royal Fashion ..	4 D.	C. R. Sprake, Murtoa
541	Royal Gartley II.	A. D.	J. McCormack, Rosebery East
233	Royal General ..	3 D.	W. R. McAlpine, Lascelles
993	Royal Gift ..	5 D.	W. G. Wilkinson, Yarrawonga
864	Royal Hero ..	A. D.	Carroll Bros., Dandenong
410	Royal Kelm ..	A. D.	Mrs. M. Alexander, Glenloth
32	Royal Kerrston ..	A. D.	F. Hamilton, Coonooer Bridge
470	Royal King ..	3 D.	T. H. Hopkins, Chillingollah East
355	Royal King ..	A. D.	C. E. Pencker, Nandaly
210	Royal Lad ..	5 D.	J. S. P. Allen, Broughton
619	Royal Mac ..	5 D.	A. Coe, Balliang
440	Royal McGregor ..	A. D.	G. Simons, Laibert
568	Royal Oak ..	3 D.	C. W. Merton, Kenmare
131	Royal Peter ..	A. D.	R. E. Hanson, Fern Hill
113	Royal Prince ..	A. D.	T. F. Hetherton, Piangil
722	Royal Redman ..	5 D.	E. McCabe, Underbool
589	Royal Rodney ..	5 D.	S. Cheatley, Elmore
33	Royal Scotch ..	A. D.	F. Henke, Boolite
685	Royal Standard ..	3 D.	S. L. Cross, Minimay
259	Royal Strabane ..	5 D.	J. Galloway, Majorca
1104	Royal Sunbeam ..	A. D.	N. Ramsay, Newbridge
356	Royal Top ..	A. P.	C. McKebery, Coleraine
87	Royal View ..	A. D.	A. Wohler and Werner Bros., Winlam
155	Royalty ..	A. P.	W. P. Lancaster, Goroke
260	Rushbrook Cairnbroggie	5 D.	K. Cameron, Warracknabeal
623	Sacedon ..	A. T.	Police Department, Melbourne
981	Sam Huon ..	A. L.	Miss E. O'Brien, East Melbourne
221	Sam Mack ..	4 L.	A. Cheesley, Barnawartha
335	Sampson ..	A. D.	W. Bingham, Thorpdale

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
306	Sandys Fashion ..	A. D.	F. T. Hemley, Glenorchy
173	Santa Claus ..	A. P.	W. C. Greaves, Monomeith
511	Santrel	A. T.	W. Irvine, Invergordon
316	School Bells ..	A. P.	S. Sanders, Brentwood
827	School Bells Junior	3 P.	H. E. Mitchell, Hopetoun
817	Scotch Ben ..	4 D.	W. C. Rothacker, Serpentine
63	Scotch Crown ..	A. D.	L. Yoxon, Narrung
538	Scotch Drummy ..	6 D.	W. G. Young, Neerim
156	Scotch Laddie ..	A. D.	H. De La Haye, Bangholme
736	Scotch Mint ..	5 D.	J. P. Slatter, Boort
421	Scotch Mixture ..	A. D.	W. Hibbins, Springfield
447	Scotch Prince ..	A. D.	Evans Bros., Moyhu
865	Scotch Thistle ..	A. D.	W. Gray, Yarrawalla South
940	Scotchie ..	A. D.	I. Kelly, Korong Vale
1048	Scotland Again ..	A. D.	A. McDonald, Mt. Wallace
132	Scotlands Dignity	A. D.	J. H. Meyer, Kaniva
798	Scotlands Viceroy's First	A. D.	D. L. Parry, Yeungroon
317	Scotlands Victor ..	A. D.	S. O'Neill, Minyip
133	Scottish Banker ..	A. D.	G. L. Byrne, Kewell North
628	Scottish Baron ..	5 D.	Miners Bros., Sea Lake
558	Scottish Chief ..	3 D.	J. Hayden and Sons, Pullut
422	Scottish Chief ..	A. D.	A. Cheesley, Barnawartha
750	Scottish Crown ..	4 D.	J. McDonald and Son, Myall
716	Scottish Dale ..	3 D.	M. V. Lockett, Linga
154	Scottish King ..	A. D.	W. Hall, Lindenow
1000	Scottish Laird ..	A. D.	M. J. Rogers, Natimuk
134	Scottish Premier ..	6 D.	H. M. Pannowitz, Diapur
114	Scotty	A. D.	A. T. Hamblin, Tooleen
603	Sedalia Douglas ..	4 D.	H. E. Giddings, Kalkee
88	Several	A. T.	J. E. Light, Quantong
635	Shadow King ..	4 D.	V. O. Frost, Netherby
462	Shepherd Again ..	A. D.	A. E. Bennett, Cowangie
1103	Shepherd Lad ..	A. D.	P. McPartland, Boosey
651	Shepherd Prince ..	4 D.	E. Ryan, Kyabram
540	Shepherds Boy ..	A. D.	A. Broom, Neereman
918	Signon	4 L.	L. Howland, Dimboola
375	Silver King ..	A. P.	A. E. Heard, Numurkah
755	Silver Prince ..	5 D.	W. McDonald, Wharparilla North
779	Silverlyn ..	3 P.	F. W. Bowden, Won Wron
975	Simon Again ..	A. D.	C. T. Wallis, Golden Square
553	Simons General ..	3 D.	A. Galloway, Majorca
115	Simons Son ..	A. D.	T. A. Nicholson, Campbelltown
246	Simulium ..	A. T.	W. Beard, Benalla
860	Sir Armadale ..	A. D.	W. Lange, Mannerim
380	Sir Craig ..	6 D.	N. R. Pitts, Merrigum
923	Sir Dillon ..	A. L.	W. Arthur, Lillimur
674	Sir Douglas ..	5 D.	W. T. Dridan, Amphitheatre
910	Sir Douglas Haig ..	A. D.	J. Lincoln, Portarlington
806	Sir Filford ..	4 L.	W. Shandley, Lance Creek
174	Sir George ..	A. P.	W. A. Polack, Dimboola
89	Sir Morley ..	A. P.	P. A. Sinnott, Ensay
642	Sir Percy Northcote	5 D.	Kennett Bros., Kaniva
516	Sir Richard III. ..	A. P.	W. Henderson, Grasmere
261	Sir Robert ..	5 D.	J. K. Russell, Hesse
856	Sir Royal Charm	A. D.	W. B. Monaghan, Speed
985	Sir Rupert ..	A. D.	N. West, Corop
831	Sky Sign ..	5 T.	W. Lakey, Shelbourne
436	Slip Knot ..	A. D.	L. Martin, Ultima
1125	Snip of Harlaxton	4 P.	E. E. Small, San Remo
850	Soldier Boy of Fenwick	A. P.	Miss S. Robinson, East Malvern
969	Solvista ..	5 L.	W. McKay, Elsternwick
632	Southerton Le ..	5 L.	J. Hegarty, Turriff
527	Spelthorne ..	A. T.	H. F. Hoysted, Wangaratta
480	Spenagucs Baron ..	6 D.	R. V. Colliver, Cora Lynn
537	Sportsmans Hero	A. D.	A. Kennedy, Arcadia
463	Springbank Lawrence	A. D.	W. H. Crawford, Hamilton
815	Spring View Favour	3 D.	Miss L. Dickins, Barfold
378	St. Carwyne ..	A. T.	E. Bromley, Tungamah
318	St. Chad ..	A. T.	B. P. Brady, Mllawa
754	St. Ninians Craig ..	3 D.	R. Meler, Moama, N.S.W.
336	St. Ninians Craigends	6 D	E. R. Morton, Drouin
1071	St. Simon ..	A. D.	F. Flynn, Glenloth
1075	Stamperland Star	6 D.	Fullam Bros., Torrumbarry
1049	Stanley Cicero ..	A. D.	M. McNamara, Undera
1008	Stans Idol ..	5 L.	Mrs. D. J. Mann, Ascot Vale
396	Starville ..	A. T.	R. J. Cook, Coromby
733	Stirling Craig ..	5 D.	A. W. Groves White, Rushworth
588	Stirling Lad ..	4 D.	D. I. Trewick, Elmore
968	Stirling Major ..	3 D.	A. Ralston, Bairnsdale
478	Strathaird ..	3 D.	R. Carroll, Perth
832	Strathkellar Benefactor	3 D.	McFarlane Bros., Anakie East
116	Strathkellar Radiance	A. D.	L. Price, Condah
157	Stryver ..	A. D.	Ellwood Bros., Wallace
696	Stylish Robin ..	3 D.	Mrs. R. Cook, Wilkur South
762	Stylish Top ..	5 L.	L. J. Bastow, Inglewood
437	Sudbourns Chief ..	A. D.	H. S. Gibson, Woorinen
763	Sunnydale ..	5 D.	J. Egan, Leichardt
741	Sunnyland Flash	3 D.	W. D. Gibb, Moyhu
483	Sunnylands Craig Fashion	4 D.	R. Carroll, Perth
201	Sunnyside Norseman	4 D.	A. E. Buerckner, Tungamah
931	Surrydale ..	A. D.	J. A. Hinton, Vite Vite
471	Sweet Bells ..	4 P.	H. Elliott, Camperdown
289	Taihape ..	3 D.	W. R. Mann, Kooloonong
976	Tenacious ..	3 P.	T. Williams, Bendigo
319	The Cavalier ..	A. D.	J. Leitch, Wodonga
1114	The Colonel ..	A. D.	Jackson Bros. and McClusky, Strathmerton
117	The Count ..	A. P.	A. M. Thomson, Hamilton
519	The Crown ..	A. D.	W. B. McIntosh, Ellam
362	The Dux ..	A. D.	T. Draper, Yackandandah
64	The Gums Masterdale	6 D.	C. Carter, Karawinna
34	The Night Patrol	A. L.	W. C. Holmes, Rainbow
879	The Toff ..	A. P.	J. Widdis, Sale
368	Thornley Master Clyde	A. D.	G. A. McNabb, Irrewillipe East
262	Thornlie Footprint	A. D.	A. C. Jorgensen, Katyil
778	Tidlyn	3 L.	F. W. Bowden, Won Wron
307	Timely Direct ..	A. L.	J. M. Cromie, Bangholme
1112	Tiny Tim ..	6 P.	S. R. Winterbottom, Mincha
821	Tiny Tim ..	5 P.	B. Vagg, Moama, N.S.W.
118	Toby	A. P.	A. W. Thompson, Hamilton
90	Tommy Dodd ..	A. P.	Boyd Bros., Koroit
833	Tooma	A. D.	F. Dobinson, Cudgewa
223	Top Gallant ..	3 D.	Allan Bros., Thalia
459	Top Score ..	A. D.	W. Fenton, Kerang
932	Toy Boy ..	A. P.	M. Gadd, Wodonga
512	Trelawney's Pride	A. D.	P. D. Cattanach, Ouyen
285	Tremenheere Star	4 D.	S. J. Taylor, Lake Boga
424	Tressayr ..	A. D.	F. R. Widdicombe, Casterton
941	Trevallyn Baron Dale	A. D.	H. Bulloch, Hamilton
404	Trimmer ..	A. D.	J. Attwood, Gorae
320	Tripos	A. T.	G. Bowman, Dunluce
690	Trooper ..	4 D.	T. Draffin, junr., Tutye
907	True Blue ..	A. D.	A. and H. Pitcher, Tatyoon
1005	True Scotch ..	A. D.	F. Sutton, Gredgwin
1010	Udale Jack ..	A. D.	A. J. Pyers, Donald
281	United Scotch ..	4 D.	Medlow and Lewis, Walkerville, S.A.
933	V. Voyage ..	4 L.	D. Larkin, Euroa
891	Valetta Archies Honour	A. D.	Mrs. E. Heenan, Harrow
363	Valetta Barons Mac	A. D.	G. Gray, Branxholme
282	Valetta Chief ..	5 D.	A. H. Argall, Gerang Gerung
667	Valetta High Honour	5 D.	T. R. Gilmour, Cope Cope
49	Vanquisher ..	A. D.	J. O Bree, Swan Hill
211	Veradale Robin ..	4 D.	R. L. Dahlenburg, Kiata
1074	Vice Royal ..	A. D.	C. S. Walker, Swan Hill
92	Viceroy Favourite	A. D.	W. Harris, Garvoc
561	Victoria Baritone	4 D.	R. and A. McClelland, Lara
620	Victoria Biologist	4 D.	Woods Bros., Epping
487	Victoria Botanist	5 D.	W. Henderson, Grasmere
618	Victoria Highlight	4 D.	F. and H. Griffiths, Balliang East
571	Victoria Major Wigton	5 D.	D. I. Gibson, Lismore
6	Victoria Mystic ..	3 D.	F. G. Hancock, Bambill
765	Victoria Northern Light	5 D.	T. M. Miller, Pearsondale
707	Victorian Prince Norval	5 D.	W. Munro, Gapsted
641	Victoria Regard ..	4 D.	H. S. Maddern, Serviceton
195	Victoria Rosarian	3 D.	E. V. Adkins, Korumburra

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Cert. No.	Name.	Age* and Class.	Owner and Address.
321	Victoria Solid Stamp	6 D.	W. J. Eades, Colac
687	Victoria Vague ..	4 D.	Mrs. H. S. McEwen, Boonoonar
773	Vio Malt ..	3 T.	J. H. Ison, St. James
1001	Vue Dale ..	A. D.	N. W. Quick, Mollonghip
617	Vue Dales Laddie	4 D.	H. Jenz, Bacchus Marsh
91	Vulcan	A. P.	Boyd Bros., Koroit
65	Walkoura ..	A. D.	H. M. Parkin, Lower Norton
27	Waironga Clyde ..	A. D.	R. S. Fraser, Culgoa
513	Waltuna ..	A. D.	S. A. Greaves, Narre Warren
572	Waldens Drumcross	5 D.	C. Block, Goroke
387	Wallace Dale ..	A. D.	W. J. Dixon, Donald
761	Walpole ..	3 D.	J. Kennedy, Rochester
1039	Walvare ..	5 L.	W. Hudson, Marionvale
539	War Lord ..	A. D.	T. Attenborough, Poowong North
357	Wapilly ..	6 T.	W. D. McKebery, Coleraine
283	Warrangee Stephen	3 D.	R. W. Peterson, Kellalac
824	Warrender Craig ..	5 D.	K. Treloar, Galaquil East
926	Wee Charles ..	4 P.	J. Dawkins, Colac
135	Wee Charles ..	A. P.	W. Foster Woods, Melbourne
423	Wee Jim ..	A. D.	W. Leaf, Waaia
19	Wee Key ..	A. P.	W. J. Clark, Dunkeld
728	Weeroona Kinsman	3 D.	H. J. Bunge, Sheep Hills
358	Welsh Flyer ..	A. L.	P. T. Reid, Milawa
464	Werndew Golden Footprint	A. D.	C. H. Perkins, Rainbow
673	Western Front ..	3 D.	J. K. Corcoran, Amphitheatre
945	Westphalia Dignity	3 D.	F. A. Lehmann, Lismore
73	White Olaf of Manar	A. P.	Mrs. D. Maclean, Yan Yean
1025	White Socks ..	4 D.	C. A. Taylor, Annuello
858	White Star ..	A. L.	G. Cruse, Bamawm
607	Widgie Hero ..	4 D.	W. Magrath, Yanac South
338	Widgiewa Alick ..	A. D.	Manager Barragunda Estate, Melbourne
20	Widgiewa Belmont	A. D.	J. A. Roberts, Willenabrina
491	Widgiewa Bill ..	5 D.	U. P. Broome, Tocumwal
1119	Widgiewa Black Diamond	A. D.	A. H. Hooper, Dookie
917	Widgiewa Cavalier	A. D.	A. G. Gordon, Broughton
959	Widgiewa Fashion	A. D.	J. Price, Mologa
145	Widgiewa Glancer	A. D.	A. Creighton, Tungamah
866	Widgiewa Intent	A. D.	F. A. McRae, Wallup
972	Widgiewa Ivo ..	A. D.	E. McKoy, Wodonga
308	Widgiewa Lebbeus	A. D.	A. Muir, Picola
290	Widgiewa MacRobertson	4 D.	H. S. MacFarlane, Annuello
1024	Widgiewa Mack ..	A. D.	Hawkins and Son, Tocumwal
119	Widgiewa Mark ..	A. D.	C. H. James, Quambatook
4	Widgiewa Norseman	A. D.	Wilkinson and Young, Yarrawonga
876	Widgiewa Norval	A. D.	J. V. Trethowan, Rockbank
301	Widgiewa Stephen	A. D.	C. Hewitt and Sons, Warracknabeal
846	William Wallace ..	A. D.	F. E. Southwell, Linga
359	Willie Belmont ..	A. D.	J. S. P. Allen, Broughton
666	Willie Holton ..	3 D.	J. Davison, Donald
882	Willie McBride ..	A. D.	A. Holmberg, Hunter South
660	Willies Pride ..	3 D.	J. Lowe, Gymbowen
263	Willowbank Hero	3 D.	W. J. Clarke, Dunkeld
7	Willys Knight ..	3 D.	E. Smith, Warragul
536	Wimmera Success	6 D.	McFarlane Bros., Berriwillock
428	Winsome Banker..	6 D.	E. F. Arthur, Warracknabeal
322	Winsome Chief ..	A. D.	Westerndorf Bros., Dimboola
264	Winsome Favourite	A. D.	F. G. Branson, Colbinabbin
711	Wizard Brooks ..	3 P.	N. R. Ralston, Moglonemby
489	Woodhurst Warrior	3 D.	G. R. Hildebrand, Leitchville
472	Woodland Footprint	4 D.	D. Holden, Katunga
68	Woorgun ..	A. T.	A. E. Hermann, Dimboola
159	Woorilla Gay Lad	A. D.	A. J. Gloster, Underbool
323	Worthy Footprint	A. D.	W. G. Ballantine, Cosgrove
737	Worthy Prince ..	5 D.	A. Kennedy, Arcadia
9	Wunnamurra Flashstroke	3 D.	J. A. Tweddle, Waaia
93	Wunnamurra Imprint	A. D.	E. V. McMartin, Yanac
1126	Wunnamurra Silverstroke	A. D.	J. Wills, Cowangie
302	Xantho ..	A. T	J. C. Whitehead, Minhamite
1101	Yanakie ..	3 L.	A. Hellisen, Yanakie
745	Yarram Bold King	3 D.	F. C. Coy, Woorndoo
604	Yeovil Sensation	3 D.	W. Elsom, Wallup
810	Young Banjo ..	5 P.	W. J. Greaves, Lyndhurst
712	Young Baron Royal	4 D.	J. G. Mengler, Wallup
849	Young Caesar ..	A. P.	R. Brindley, Guy's Forest
24	Young Clyde ..	A. D.	F. Walsh, Lancefield
361	Young Cymro Bar	A. P.	J. L. Arthur, Coleraine
360	Young Dan ..	A. D.	Mrs. L. Hart, Sea Lake
370	Young Degree ..	A. D.	L. Greenbank, Snake Valley
203	Young Experiment	4 D.	J. T. Jones, Wilby
197	Young Flashlea ..	5 D.	A. Rissman, Tarrington
787	Young Foreman ..	4 D.	G. S. Fraser, Ellinbank
158	Young Harperland	6 D.	W. E. Hards, Meringur
160	Young Ki Ki ..	A. P.	T. Robertson, Macarthur
1091	Young Lad ..	A. P.	W. H. Gillett, Longwarry
420	Young Linkwood	A. D.	J. W. Cottrell, Quambatook
504	Young Lymney Champion	A. D.	W. H. Penaluna, Boolarra
979	Young McLeish ..	A. D.	J. Charlton, Stony Creek
1029	Young Middlemarch	A. D.	R. MacKenzie, Pullut
284	Young Morocco ..	3 D.	J. Walsh, McKenzie's Creek
791	Young Punch ..	4 D.	J. Minotti and Son, Strathlea
381	Young Sapper ..	A. D.	H. White, Cowangie
613	Young Scratchley	3 D.	H. Hopper, Terrick South
1013	Young Starling ..	A. L.	W. Regan, Moonee Ponds
13	Zone Time ..	A. D.	A. Hamilton, Corryong

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

REGISTRATION REFUSED

List of Stallions in respect of which Certificates of Registration have been refused but which, the owners having paid the prescribed fee, may be retained for breeding purposes with owner's own mares.

Name.	Age* and Class.	Owner and Address.
Unnamed	3 D.	Mrs. R. Cannard, Litchfield
Unnamed	6 D.	G. P. McKay, Glenorchy
Unnamed	4 D.	M. W. McLaughlin, Birchip
Unnamed	3 D.	E. W. Merritt, Lillimur
Unnamed	A. D.	Mrs. J. Maloney, Wallace
Unnamed	A. D.	R. E. Morse, Maryborough
Unnamed	5 L.	R. P. Nicol, Yarram
Alto Bells	4 P.	J. Barty, Redesdale
Argyles Pride	A. D.	T. P. Moloney, Litchfield
Avon Style	4 L.	D. McIvor, Beazley's Bridge
Bangaroo Style ..	A. D.	G. Hounsell, Jeparit
Bankers Pride	3 D.	A. J. Williams, Beulah
Barfold	A. D.	N. J. Hanrahan, Barfold
Barney	3 D.	B. J. Lloyde, Pinnaroo
Baron Afton	A. D.	W. R. Wilkinson, Waaia
Baron Willie	6 D.	J. A. Janetzki, Minyip
Basil More	A. D.	W. Bilstein, Pirita
Bay Prince	5 D.	N. A. Campbell, Kerang

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

Stallion Register 1933-34—*continued.*

Name.	Age* and Class.	Owner and Address.
Ben	A. D.	E. J. Dickinson, Tutye
Bill	4 D.	C. Evans, Willaura
Bill	4 D.	J. Nalder, Laibert
Bill Craig	3 D.	Ford Bros., South Muckleford
Black Star	A. D.	Tucker Bros., Mitchell's Hill
Blue North	4 D.	C. Brownlaw, Carwarp
Bold Alexander	A. D.	W. T. Morish, Tiega
Bold Cavalier	3 D.	H. Hutchings, Kaniva
Bold Duke	A. D.	Mrs. E. M. Jenkins, Meringur
Bold Duke of Connaught	6 D.	J. F. Zanker, Walpeup
Bold Lad	3 D.	J. H. Chivell, Corowa
Bold Mack	4 D.	W. H. Baker, Bunguluke
Bold Surprise	4 D.	L. S. Jackson, Laen
Bonnie Stewart	5 D.	H. J. Gidney, Brighton
Bonny Bruce	4 D.	R. J. Robertson, Dundonnell
Bonny Obedience	A. D.	C. Storer, Branxholme
Boxa Dale	4 D.	J. Flavel, Yaapeet
Boxvale Colonel Flashwood	4 D.	McEwen Bros., Boyeo
Brassey	4 P.	F. C. Petrass, Kewell
Brilliant Boy	4 D.	Glenn Bros., Tilden
Briton Bold	A. D.	G. Crittendon, Lake Hindmarsh
Bruce	6 D.	J. Curran, Yarragon
Bruce Douglas	6 D.	M. Bennett, Ballapur
Buchylyvie Again	A. D.	J. H. and W. Oldfield, Nhill
Captain Hinkler	6 D.	L. F. Stewart, Nandaly
Captain Lad	3 D.	J. L. Meier, Nhill
Captain Royal	6 D.	M. Egan, Culgoa
Captain Treacy	3 P.	E. J. Ball, Torrumbarry North
Carngham Flash Baron	5 D.	T. A. Heard, Noradjuha
Cedric Prince	4 D.	C. Mengler, Linga
Champion	A. D.	Mrs. B. Willmott, Trentham
Charlie	A. D.	J. T. Deering, South Wangaratta
Chester	4 D.	W. H. Robinson, Kerang
Chub McGregor	A. D.	E. Adamson, Barham
Clan MacKenzie	4 D.	J. Purdie, Wunghnu
Clem Junior	A. P.	N. Cole, Camperdown
Clyde	4 D.	C. Butcher, Creek View
Clyde	4 D.	L. S. Cadman, Biggara
Count Douglas	A. D.	C. A. Lawrence, Apsley
Crackall	3 L.	P. J. Reid, Milawa
Craig Lion	5 D.	C. Ayres, Rosedale
Craigie Don	A. D.	C. Butcher, Chillingollah
Dalrymple	3 D.	L. W. Brown, Hopetoun
Dandy Bell	A. L.	H. Spice, Bacchus Marsh
Dimora Chief	4 D.	Jenz Bros., Portland
Dodger	5 D.	T. Makeham, Cannie
Don	4 D.	A. L. McGregor, Walpeup
Donald	A. D.	Smart Bros., Gooramadda
Dowhill Black Prince	6 D.	R. V. Quick, Angip
Dunsmore	A. D.	J. J. Lawless, Burramine South
Earl Watson	3 D.	R. Douglas, Buckrabanyule
Economist	4 D.	Parker Bros., Quambatook
Fashion McGregor	5 D.	J. H. Fletcher, Teal Point
Fish Creek Baron	A. D.	J. J. Mackin, Fish Creek
Flash Direct	A. L.	C. T. Evans, Rathscar
Flash King	4 D.	D. Bryce, Narraport
Flash Robin	3 D.	O. W. Gaulke, Tarranyurk
George	5 L.	F. Watkins, Melbourne
Giffard Lad	6 D.	H. F. Shields, Giffard West
Glen Gonner	4 D.	J. McGregor, Tunart
Glenlea Scottish Chief	4 D.	J. Tallent, Berrybank
Goomalibee Prince	4 D.	G. Goodman, Benalla
Goudie	4 D.	N. F. Paten, Werrimull
Happy Roy	3 L.	R. Scully, Rokewood
Hector Lee	4 D.	J. S. Carlyon, Wahring
Hero Marks	3 D.	Nancarrow Bros., Kerang
Hill King	A. L.	A. E. Cummings, Berrimal
Hill Park Craig	4 D.	D. Rumbold, Baringhup West
Hinkler	5 D.	H. Fisher, Yaapeet
Honest Glen	A. L.	W. Eichler, Chillingollah
Huonson II.	A. L.	W. Marke, Girgarre
Ideal Scotsman	5 D.	N. E. Miller, Yanac South
Jack	5 D.	H. S. Hayes, Toolleen
Jock McKie	3 D.	A. Creighton, Tungamah
Joe	5 D.	E. P. Landt, Beulah East
John Bull	3 D.	A. Barber, Lorquon
Kellum McBride	4 D.	C. S. Sims, Mitiamo
Kelvin Again	3 D.	J. Boyle, Mitchell's Hill
Kelvin Again	6 D.	C. H. Wandell, Underbool
Kennedys Pride	6 D.	H. F. Mathison, Maffra
King Huon	4 L.	J. Nulty, Carwarp
King Lord	3 D.	Malook Singh, Manangatang
Linkwood Prince	4 D.	V. S. Holt, Kurraca West
Little Wonder	4 P.	H. F. Ridd, Molesworth
Little Wonder II.	A. P.	T. R. Henry, Stanhope
Loddon Lea Victory	3 D.	S. Laird, Calivil
Lord Allenby	3 D.	P. V. Tomamichel, Ultima
Lord Dalmore	6 D.	J. H. Hallam, Morkalla
Lord Donald	4 D.	C. A. Ingwersen, Patchewollock
Lords Pride	4 D.	H. Sunderman, Dawson
M.A.	A. D.	J. A. McKinley, Timor West
Mack Mettis	5 L.	A. G. Pole, Jil Jil
Major	A. D.	F. Hobbs, Baring
Major Dalmore	4 D.	R. Englemann, Walpeup
Major Laddie	6 D.	G. Stratton, Echuca
Marcus	3 D.	Jas. Crowe, Codrington
Mark	5 D.	C. Godward, Mincha
Mark Twain II.	3 D.	L. and C. E. Hicks, Manangatang
Marshstyle	3 D.	W. Dalrymple, Dingee
Master	4 D.	J. A. Conzner, Angip
Merry Son	4 D.	A. Bradshaw, Goschen
Moama	6 L.	A. Hodson, Hedley
Model	6 D.	W. Steen, Emu Creek
Morocco Boy	4 D.	T. Blair, Watchem
Mountain Hero	5 D.	R. Barry, Birchip
Myall Punch	5 D.	R. B. Metherall, Sea Lake
Nailstone Barossa	A. D.	O. McCabe, Underbool
Netha Ha Andy	3 D.	J. H. McMahon, Merrinee
November	A. L.	Ramage and Mason, Violet Town
Nuggett	A. D.	P. Neyland, Patchewollock
Ondit	A. D.	Executors of the late N. Thornley, Hawkesdale
Overtone	3 D.	J. P. Maher, Minyip
Paul	A. D.	D. A. Zippil, Wonwondah
Pedro Pronto	A. L.	G. Stow, Prahran
Pettadales Pride	6 D.	D. Green, junr., Nullawil
Petties Model	3 D.	D. Pollock, Terrick South
Plucky Mac	4 D.	C. R. Malseed, Dartmoor
Powdy	6 D.	R. White, Elmore
Premiers Pride	6 D.	P. Ryan, Chinkapook
Pride of the Plains	A. D.	A. Robertson, Hesse
Prince	A. D.	H. J. Putland, Sea Lake
Prince	3 D.	E. Wallden, Tungamah
Prince	6 D.	Dolman Bros., Coleraine
Prince	4 D.	M. Findlay, Mincha
Prince	4 D.	G. V. Grundy, Tutye
Prince	4 D.	Boyd Bros., Koroit
Prince Charles	A. D.	P. Munro, Ouyen
Prince Charlie	A. D.	L. R. Bailey, Pinnaroo
Prince Daley	3 D.	W. J. Borden, Watchem
Prince Douglas	6 D.	A. Fithall, Mooler
Prince Edward	A. D.	T. Hennessy, Gowangardie
Prince Imperial	A. D.	A. McNee, Nandaly
Prince Lyndhurst	4 D.	C. D. Lienert, Hopetoun
Prince of Wales	3 D.	L. J. Mason, Cannum
Prince Radiant	5 D.	H. G. Kruger, Croxton East
Prince Raven	4 D.	A. McGarry, Nyarrin
Prince Victor	4 D.	G. Greskie, Peechelba
Punch	A. D.	W. Earl, Woodside
Punch	A. D.	Mrs. J. McLean, Garfield
Punch	5 D.	I. McKay, Tempy
Quality Swell	A. D.	C. R. Taylor, Allansford
Radiant Crown	4 D.	A. F. Kruger, Rainbow
Radiant Lad	3 D.	J. L. Birthisel, Wiehla
Recruit	4 D.	C. J. Stevenson, Pirlta
Regent	6 D.	C. Nelson, Benalla
Repeater II.	4 D.	A. Engler, Carina
Rexworth Lindale	4 D.	C. E. Collins, Turriff West
Robin	5 D.	J. Hay, Framlingham
Robin	4 D.	A. A. Drendel, Ouyen
Robin Dale	4 D.	E. A. Kruger, Rainbow
Rover	4 D.	B. Evans, Strathcona
Royal Baron	A. D.	G. E. Tyler, Sale
Royal Coast Guard	3 D.	A. J. Nullar, Hopevale
Royal Drum	4 D.	A. E. Heath, Sheep Hills
Royal Flash	3 D.	A. V. Schlitz, Quambatook
Royal Flush	5 D.	A. A. Moller, Birchip
Royal Hero	3 D.	Mrs. P. E. Etherton, Broughton
Royal Hero	4 D.	H. F. Altman, Dalmallee
Royal Huzza	A. L.	C. Balmer, Bairnsdale
Royal King	A. D.	D. Gorman, Crossley

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

STALLION REGISTER 1933-34—*continued.*

Name.	Age* and Class.	Owner and Address.
Royal Mail	3 D.	N. McFarlane, Hamilton
Royal Netherby	3 D.	H. Ryan, Molyullah
Royal Newton	A. D.	J. Warwick, Strathlea
Royal Nugget	4 D.	H. McClelland, Bealiba
Royal Prince	3 D.	H. Hargreaves, Kurraca West
Royal Radiant	3 D.	R. Barber, Nhill
Royal View	3 D.	G. McGregor, Galah North
Scotlands Duke	A. D.	H. F. Quick, Brim
Scottish Knight	6 D.	J. H. Muller, Nagambie
Shepherd of Albyn	4 D.	T. P. Moroney, Tongala
Shepherds Star	3 D.	Neale and Newton, Echuca
Signal	A. D.	W. H. Fletcher, Lake Boga
Simba	4 L.	Mrs. M. Johns, Lewen
Sir Michael	5 D.	E. Lewis, Tatong
Southern Boy	4 D.	W. L. Chaplin, Cowangie
Spring Time	5 D.	J. J. Pedder, Benetook
Stirling	4 D.	R. D. Buckley, Gerang
Surprise	3 D.	F. H. Johnston, Meatian
Ted Anton	6 L.	A. G. Robertson, Boweya
The Gaffer	4 L.	G. Phelan, Corop
The Gunner	3 D.	H. G. Hanna, Walwa
The Rising Tide	5 D.	J. Bagnell, Mologa
The Tiger	A. D.	J. Edelsten, Yaapeet
Thornleys Pride	4 D.	M. W. Carey, Glengarry
Tim	3 D.	J. Colbert, junr., Broughton
Top Gallant	3 D.	H. Boal, Wyuna South
Tory Boy	3 D.	T. W. McGennisken, Horsham
United Duke	6 D.	R. J. Batten, Wollert
Waldairas King Knight	3 D.	Boyd Bros., Koroit
Warook	5 P.	J. V. McKenzie, Wonga
Warrior	6 D.	R. Walpole, Cheerilong
Wayside Direct	4 L.	R. W. Pitcher, Elaine
Werndew Golden Chance	6 D.	R. A. Perkins, Rainbow
Widgie	4 D.	T. Haw and Riegel Bros., Mitiamo
Widgiewa Jock	3 D.	S. T. Rothwell, Underbool
Wildwood	6 L.	W. Cattlin, Elmore
Wilma Royal Stewart	4 D.	J. B. Fuller, Dumbalk North
Wunnamurra Tally	3 D.	H. E. Powell, Areegra
Wyuna Ben	3 D.	M. Dillon, Sunbury
Young Baron Argyle	4 D.	J. Kirk, Donald
Young Craig Willie	5 D.	R. N. Ronalds, Birchip
Young Harold	A. P.	W. Newton, Cape Bridgewater
Young Toby	6 D.	W. J. Newton, Lower Cape Bridgewater
Zeebrick	5 3	F. A. J. Pahl, Murrayville

* *Note.*—Age in years. A., aged; D., draught; L., light; P., pony; T., thoroughbred.

Orchard and Garden Notes

(*Continued from page 239*).

Hazels and filberts, too, are worthy of consideration, especially in the hills or in the cooler climates of the State. They are hardy, and beyond the usual orchard care of cultivation, require very little attention at all.

The Vegetable Garden.

In warm districts, considerable supplies of onion seeds or seedlings may be set out in gardens. In cold and later districts, this work should be left until after July. Silverskins are the first to be harvested; then the Globe type; and last the Brown Spanish.

Onions require a very good soil, so that if the garden soil be poor, it should be well manured prior to sowing or planting. As they are also deep-rooting plants, the ground must be well and deeply worked.

In many gardens, activities in the vegetable section are not very urgent at this time of the year. Where any plot is to be left unoccupied, it will be well to give it a heavy dressing of lime or gypsum, and after digging to sow rape, mustard, or peas. These crops may afterwards be dug in for green manure. This would be invaluable for the coming season.

In warm areas, crops of green peas and broad beans may be sown, but lime should be thrown on the beds before sowing. The broad beans should be soaked for half an hour in a pale green solution of copper sulphate, in order to destroy any spores of bean rust.

Professional Papers

[This section is devoted to professional papers and articles of a scientific character.]

The Green Peach Aphid (*Myzus persicae Sulzer*) in relation to the Peach in Victoria, and the Measures investigated for its Control.—Part III.

By Keighley M. Ward, B.Agr.Sc., Assistant Entomologist.

Parts I. and II. of this paper appeared in the February and March issues of the Journal

Investigations on Control Measures

AFTER a consideration of the possible means of achieving economic control of *M. persicae* in peach orchards three methods of attack suggest themselves. These are (i) the use of contact insecticides in autumn against the winged migrants and egg-laying females; (ii) the use of contact sprays in early spring against the fundatrices; and (iii) the destruction of the egg stage with egg-killing washes. A fourth method would be to apply contact insecticides to the trees in spring after the leaves already had become infested by the aphid. This method has been practised extensively in Victoria, but has very seldom met with success owing to the great difficulty of reaching the insects in the curled and distorted leaves. Therefore, it is to be avoided wherever possible.

The first three methods will be considered in detail. Refer to Graph I. (i) The autumn migration from the secondary food-plants takes place over a period of about five weeks, and the production of egg-laying forms on the peach begins immediately the first migrants become established on the trees. Oviposition commences two weeks after the arrival of the first migrants (since the oviparous female takes only fourteen days to develop to maturity, cf. Table II.). Now, a spray programme designed to be effective at this time of the year would necessarily involve the application of a series of contact sprays at intervals of not more than ten days throughout the period of the autumn migration. The object of such a programme would be to destroy the egg-laying females before they reached maturity, and also the migrants themselves. If time were allowed for eggs to be deposited the contact sprays would not be effective, because the majority of them are not fatal to aphid eggs. Since this method of control would involve at least three sprayings with a contact insecticide in autumn it would be expensive in both labour and materials. There is every likelihood, however, that the method would result in a high degree of control of the aphid.

(ii) The use of contact sprays against the fundatrices in early spring should give effective control, provided that the sprays were applied very soon after hatching is completed and before the unfolding of the leaf buds. With most varieties of the peach there would be a period of two to three weeks in which the sprays could be applied. That this method would prove satisfactory has been shown by the results of experiments in the Murrumbidgee irrigation area of New South Wales, where an application of nicotine sulphate in August gave very good control of the insect(6). However, if this method alone were relied on there would be the danger of orchardists delaying the application of spray material until the leaves had developed and become infested. As pointed out previously, infestation by the aphid does not show itself by its effect on the tree until the leaves have appeared. Once this state is reached it is almost impossible to suppress the insect.

(iii) The success of control measures directed against the egg stage would depend primarily upon there being available a spray

material with high egg-killing powers. The period over which such a material could be applied is short, since only two weeks elapse between the end of oviposition and the beginning of hatching. If the ovicide possessed contact-insecticidal properties which

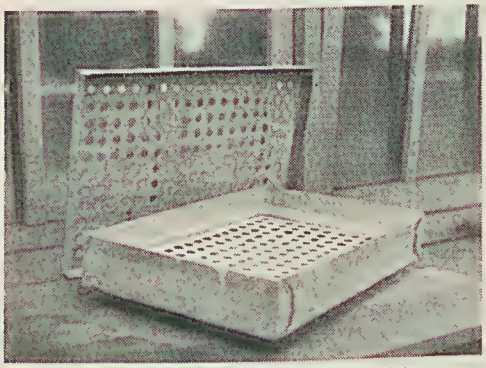


Plate 9.—Type of tray used in ovicide tests.

would ensure the killing of aphids which had hatched, its value would be enhanced, since the length of time during which it could be applied would be increased. A single, thorough application of an efficient spray material of this nature during the critical period would end the activities of the aphid on treated trees for the remainder of the year.

In the following laboratory and field experiments the object has been to show that *M. persicae* can be controlled satisfactorily solely by measures directed against the egg stage of the insect. In experiments conducted in England by Staniland, Tutin, and Walton(7) it has already been shown that a tar distillate wash, which has been thoroughly investigated at Long Ashton, was very effective in killing the eggs of the apple aphid, and that it was a decided improvement on older types of ovicides. It was therefore decided to test the material against the eggs of *M. persicae*, and a quantity of the mixture was imported for the purpose.

A.—Laboratory Tests with Ovicides.

These tests were made to determine the egg-killing power of various spray materials against the eggs of *M. persicae*, with particular reference to the effect of a tar distillate mixture manufactured in England, according to a formula devised at Long Ashton. The work was carried out in 1932 and 1933.

Twigs bearing aphid eggs were cut from peach trees and brought into the laboratory where each was examined under a binocular microscope, and the number of eggs around each bud was recorded thus:—

Lateral Number.	Bud Number. (From base of twig).	Number of Eggs on Bud.	Lateral Number.	Bud Number.	Number of Eggs on Bud.
1	1	5	35	1	15
	2	6		2	15
	3	0		3	8
	4	6		4	11
	5	1		5	6
	6	5		6	7
	7	1		7	5
	8	2		8	12
	9	2		Tip	15
	10	1			
	11	3			
	12	3			
	Tip	10			
	Total 45			Total 93	

Each twig was then numbered and banded with a "tanglefoot" material to prevent the escape of hatching aphids. Suitable groups of twigs were arranged in shallow trays and sprayed with the particular spray mixture. Special care was taken to ensure that every bud was thoroughly coated with the spray. After being sprayed twigs were placed with the cut ends in fresh water in especially constructed trays (Plate 9). From 150 to 350 eggs were used in each test.

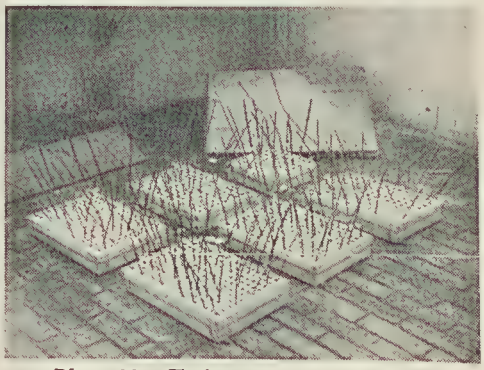


Plate 10.—Twigs arranged in trays.

As the hatching season approached the unsprayed controls were examined frequently, and as soon as young aphids were observed the entire series was examined under a binocular microscope, and on each twig the numbers of shrivelled, hatched, and sound eggs were recorded. All eggs which had definitely

shrivelled or hatched were removed from the twig, so that only sound eggs remained. The number of aphids found on each twig, including those caught in the "tanglefoot" material, served as a rough check on the number of hatched eggs. The examination of the series was repeated at suitable intervals until all eggs had been accounted for. In order to obtain a reasonably accurate estimation of the percentage of eggs which did not hatch irrespective of treatment, a relatively large number of eggs was left unsprayed.

1932 Results of Laboratory Tests.

The final figures obtained for each spray material in the 1932 tests are summarized in Tables III. and IV. In considering the results, it is necessary to take into account the figures obtained from the controls, since a proportion of these eggs did not hatch irrespective of treatment. These would include unfertilized eggs and those killed from natural causes. In calculating the percentage of viable eggs killed, the control figures have been allowed for by deducting the average percentage of unhatched eggs in the controls (29 per cent.) from the percentage unhatched under each treatment, and multiplying by $\frac{100}{100-29}$. A similar correction has been used by Tattersfield, Gimingham, and Morris in experiments with insecticides at Rothamsted(8). Of the total number of eggs used 2.8 per cent. were not accounted for, and in calculating the percentage unhatched under each treatment the number not accounted for was deducted from the number of eggs treated.

Table III.

Spray Material.	Concentration in c.c. per 100 c.c. of Spray Mixture.	Number of Eggs Treated.	Number of Eggs Not Hatching.	Percentage Eggs Not Hatching.	Percentage Viable Eggs Killed (Allowing for Control).
Tar ..	5	264	264	100	100
Distillate ..	4	305	305	100	100
,, ..	3	327	327	100	100
,, ..	2	355	354	99·7	99·6
Lime-Sulphur	10	149	128	85·5	79·7
,, ,, ..	8·33	178	146	80·8	72·5
,, ,,	6·66	164	116	72·8	61·7
,, ,,	5·0	159	119	74·2	63·7
Red Oil ..	5·0	182	83	44·8	22·5
Control ..	..	719	208	28·9	..

Table III. indicates the remarkably high toxicity of the tar distillate wash to aphid eggs even at the low concentration of 2 per cent. Only one of the 1,251 eggs treated with this material hatched. The majority of these eggs remained sound and robust in appearance for some time after all the other eggs used in the tests, including those untreated, had either shrivelled or hatched.

The lime-sulphur mixture also caused a relatively high mortality of eggs at the 10 per cent and 8.33 per cent. strengths, but the percentage of eggs killed decreased fairly markedly at the two lower concentrations, both of which were about equally effective. The treatment with red oil resulted in a remarkably low mortality of eggs at a strength of 5 per cent. The figure in Table III. (22.5 per cent.) represents the percentage of viable eggs killed outright, while the figure in Table IV. (51.3 per cent.) includes also the percentage of newly-hatched aphids killed through coming into contact with the spray mixture on the surface of the twig.

In the case of every spray material, with the exception of tar distillate, it often happened that eggs hatched but soon after emergence the young aphids were killed, due to contact with or absorption of traces of poison. In examining the twig it was not uncommon to find a newly-hatched but dead larva beside an empty egg-shell. In the counts such eggs were recorded as "hatched," whereas they might reasonably be included among the "not hatched." If these cases are taken into account the final figures would be somewhat above those shown in Table III. Table IV. shows the final results when the dead larvae are recorded among the "not hatched" eggs.

Table IV.

Spray Material.	Concentration.	Number Eggs Treated.	Number Eggs Hatching.	Number Larvae Dying After Hatching.	Percentage Eggs and Larvae Killed.	Percentage Viable Eggs and Larvae Killed.
Lime-Sulphur	10	149	21	9	91·9	88·6
,, ,,	8·33	178	32	9	87·1	81·2
,, ,,	6·66	164	48	12	79·1	70·5
,, ,,	5·0	159	40	13	81·1	73·4
Red Oil ..	5·0	182	99	42	65·3	51·3

Results of 1933 Laboratory Tests.

The method of procedure in the 1933 tests was the same as in the previous year. In these experiments two brands of tar distillate wash

already on the local market were used, and they were compared with several experimental tar distillate mixtures made up from material obtained locally. At the same time red oil was tested again in order to confirm the 1932 results.

In the tests, a small proportion of young aphids died soon after hatching, due to their coming into contact with the spray material. These dead aphids were recorded as "not hatched" eggs. In calculating the percentage of viable eggs killed, allowance again has been made for the percentage of eggs not hatching in the controls.

TABLE V.—RESULTS OF LABORATORY TESTS ON EGGS OF M. PERSICAE—1933.

Spray Material.	Concentration.	Number Eggs Treated.	Number Eggs Not Hatching.	Percentage Eggs Not Hatching.	Percentage Viable Eggs Killed. (Allowing for Control).
	%				
Tar Distillate A. ..	3·0	185	162	87·6	84·5
,, ,, ..	2·5	180	159	88·3	85·4
,, ,, ..	2·0	190	152	80·0	75·0
,, ,, ..	1·5	128	92	71·9	64·9
,, ,, ..	1·0	174	117	67·2	59·4
Tar Distillate B. ..	3·0	182	138	75·8	69·8
,, ,, ..	2·0	145	101	69·7	62·1
Test Emulsion I.	4·0	141	108	76·6	70·8
,, ,,	3·0	187	128	68·4	60·5
,, ,,	2·0	255	138	54·1	42·6
Test Emulsion II.	3·0	181	104	57·5	46·9
,, ,,	2·0	193	110	57·0	46·3
Test Emulsion III.	3·0	189	99	52·4	40·5
Red Oil ..	6·0	410	211	51·5	39·4
,, ,, ..	5·0	209	102	48·8	36·0
Control (Untreated)	..	644	129	20·03	...

From Table V. it is evident that the effectiveness of tar distillate materials varies considerably. None of the sprays used in these tests caused as high a mortality of eggs as the tar distillate and lime-sulphur (at 10 per cent. strength) used in the 1932 tests. Tar distillate A was fairly highly toxic at 3 per cent. and 2.5 per cent. strengths, and its toxicity decreased gradually with decrease in concentration. Of the other tar distillate materials, distillate B, and test emulsion I., while not giving an altogether satisfactory "kill," were promising at the higher strengths. Test emulsions II. and III. proved definitely unsatisfactory. The figures obtained for the red oil fully confirm the 1932 results, and, moreover, an increase in strength to 6 per cent. caused only a very slight increase in the mortality of eggs.

Tar distillates A and B were available commercially, and of the test emulsions I. and III. contained a proportion of petroleum oil.

How Sprays Prevent Eggs from Hatching.

Experiments with egg-killing washes at Long Ashton by Staniland, Tutin, and Walton(7) have shown that, whereas the eggs of certain moths can be killed by a smothering action alone, as when coated with a film of paraffin wax, such is not the case with eggs of aphids. It appears that, with the latter, toxic action plays a more important part than smothering effect. On twigs and eggs properly prepared tar distillate wash forms a uniform, varnish-like film which does not appreciably evaporate and is not washed off by rain, and further, it contains constituents (e.g., diphenyl oxide) which possess true toxic properties. Doubtless it is to these several properties that the material owes its effectiveness with aphid eggs. Wardle(9) states that coal-tar oils may affect insect eggs injuriously by "penetrating the surface layers and coagulating the protoplasm of the underlying tissues."

The action of lime-sulphur on aphid eggs is definitely toxic. With reference to lime-sulphur compounds, Wardle states that they exert their insecticidal influence by softening or dissolving the outer surface layers. That red oil has a toxic action to a certain degree is indicated by the number of aphids which were killed soon after hatching. The insecticidal action of oil emulsions, however, is due more to the power of forming a thin film of oil and so exerting a smothering effect, than to their toxic action. The Long Ashton laboratory experiments with egg-killing washes have shown that on this account emulsions of heavy lubricating oils are ineffective in controlling aphids. The results of these experiments confirm earlier results obtained in the field at East Malling by Gimingham, Massee, and Tattersfield(10).

B.—Field Trials with Ovicides.

Preliminary non-quantitative tests conducted at Burnley and in the Goulburn Valley during the winters of 1930 and 1931 indicated that the insect might be completely controlled by means of an efficient egg-killing winter wash. In these tests unsprayed trees were heavily infested by the aphid, while trees

sprayed with a tar distillate wash were quite clean, and, moreover, remained free from the insect for the whole season. In view of the success of the tests it was decided to extend the trials in the winters of 1932 and 1933; the work was carried out at Ardmona in the Goulburn Valley and at Burnley.

Methods.

Arrangement of Plots.—In all cases in the 1932 and 1933 experiments the various treatments were replicated, and plots were randomized for reasons which are apparent later. In the blocks of peach trees selected at Ardmona each plot consisted of sixteen trees, and was square in shape. As will be seen from diagram 1, which shows the arrangements of plots in 1932, there were four trees in the centre of each plot surrounded by twelve "buffer" trees, and each group of four is separated from adjoining groups by two rows of "buffer" trees. It was deemed advisable to adopt this arrangement to minimize the effects of spray material drifting from one plot to another during application. All results were taken from the group of four "experimental trees" in the centre of each plot. The Ardmona experiments were made on four to six-year old Healesville Cling peach trees. At Burnley, where fewer trees were available, each plot always consisted of five trees in a row, and "buffer" trees were dispensed with.

Distribution of Eggs on Plots.—After the completion of egg-laying, and prior to the application of spray materials, a survey was made, in each case, to determine the numbers and distribution of aphid eggs on the plots. On each of the four "experimental" trees in each plot four laterals (each about 15 inches in length) were selected at random, and the numbers of eggs on them were counted. Thus there were sixteen laterals examined on a plot. From these counts the average number of eggs per lateral for each plot was obtained. The figure in the lower right hand corner of each square in diagram 1 represents the average number of eggs per lateral for each plot.

The surveys showed that the eggs of *M. persicae* are not uniformly distributed over a block of peach trees, but that in a large block outside rows of trees (i.e., adjoining headlands, &c.) invariably carried a greater number of eggs than those more remote from headlands and permanent irrigation channels. An irregular distribution of eggs, such as

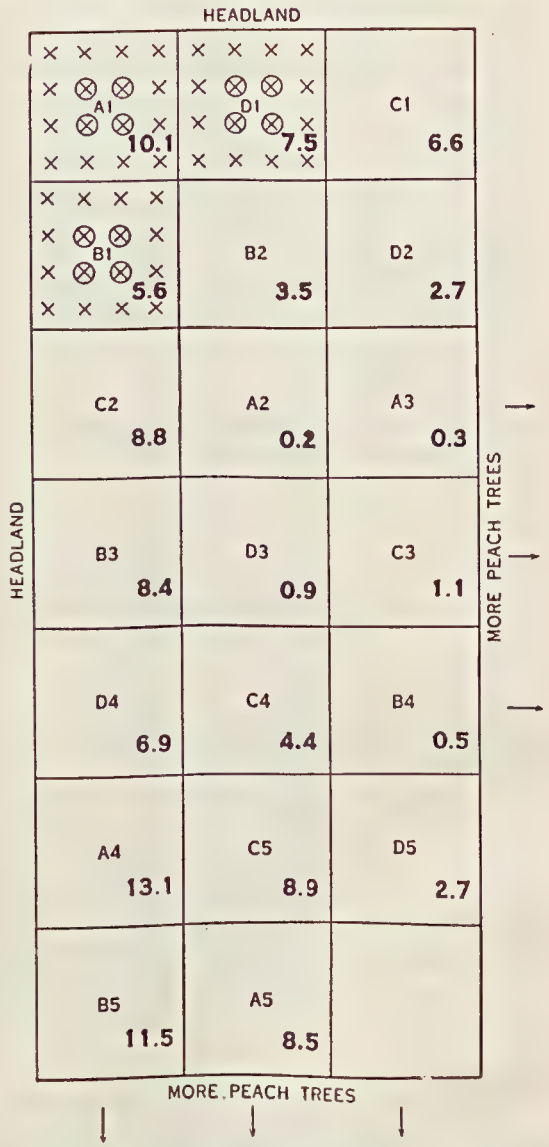


Diagram 1.—Arrangement of plots and distribution of eggs at Ardmona 1932. The experimental trees are indicated in the circles.

existed in this case, emphasized the necessity of randomizing the plots to ensure that each spray material would be applied to plots both lightly and heavily infested with eggs.

It would appear that for such a distribution of eggs to occur, the majority of autumn migrants alight on trees nearest their summer food plants (which grow undisturbed on headlands, &c.), while some may be carried further into the orchard by wind, or make a second migratory flight from the trees on which they first alighted. It was observed that

spring infestation by the aphid was most heavy near headlands, and thus corresponded with the distribution of eggs.

Estimation of Results.—Effects of sprays are often judged by "general impression" and infestation by an insect is expressed in such terms as "light," "medium," or "heavy." While such a method is useful to express spray injury and the general appearance of sprayed and unsprayed trees, it does not provide a method of measuring the degree of infestation in different plots, and thus is too vague to be of scientific value. In the present case, probably the best method which could have been adopted is one devised by Gimingham, Massee, and Tattersfield. This involves the recording of details of numerous eggs on selected laterals from sprayed and unsprayed trees, before and after treatment, results being based on the percentage of eggs killed. The amount of work involved and the distance of the principal experimental blocks from a laboratory precluded the use of this method.

Under the method finally adopted infestation was expressed, in all cases, as the percentage of injured laterals on the experimental trees, the examination being made, of course, after the leaves had appeared. In order to compute this percentage random samples were taken on each plot, the unit being a main branch of a tree. Each tree carried from three to seven main limbs. When a branch was selected, first, all the laterals on it were counted and recorded, and then all the injured laterals. A lateral was considered to be injured if any of its leaves showed curling or distortion due to aphid infestation.

Conditions of Spraying.—Spray materials were always applied early in July, and calm, fine days were selected for the spraying, so that drifting of the spray-mist would be at a minimum, and the materials would have every chance to dry on the trees. The pump pressure maintained was 240-260 lb. per square inch, and the amount of material applied to each tree at Ardmona was from 1 to 1.3 Imperial gallons.

Results of 1932 Field Trials.

At the Ardmona centre the treatments were—

1. A—Tar distillate (Wisbech winter wash), 3.33 per cent. (1 in 30).
2. B—Tar distillate (Wisbech winter wash), 2.5 per cent. (1 in 40).
3. C—Red oil, 5 per cent. (1 in 20).
4. D—Untreated.
5. Lime-sulphur, at 10 per cent. strength was applied to separate plots in another section of the orchard.

With the exception of lime-sulphur each treatment was replicated five times, and the plots were arranged as in diagram 1.

x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x
A I	C I	B I	C II	A II	D I	B II	B III	A III	C III	B IV
x	x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x	x
51.2	26.8	41.2	20.6	23.4	10.5	8.6	27.6	23.2	20.5	23.8
x	x	x	x	x	x	x	x	x	x	x
		D II		9.3						
		x	x	x						

Diagram 2.—Arrangement of plots and distribution of eggs at Burnley 1932.

(The numbers 51·2, 26·8, etc., represent the average number of eggs per lateral of 12 inches length (approx.). 20 laterals were examined on each plot.)

TABLE V.—DETAILS OF RESULTS AT ARDMONA, 1932.

Plot.	Number Laterals.	Number Laterals Infested.	Percentage Laterals Infested.	Plot.	Number Laterals.	Number Laterals Infested.	Percentage Laterals Infested.	Plot.	Number Laterals.	Number Laterals Infested.	Percentage Laterals Infested.	Plot.	Number Laterals.	Number Laterals Infested.	Percentage Laterals Infested.
A.I.	49	0	..	B.I.	102	0	..	C.I.	24	2	8·3	D.I.	34	21	61·4
	21	0	..		101	0	..		34	0	..		46	33	71·7
	60	0	..		30	0	..		28	0	..		54	19	35·2
	69	0	..		95	0	..		36	0	..		59	16	27·1
A.II.	118	0	..	B.II.	110	0	..	C.II.	90	5	5·6	D.II.	86	31	36·0
	44	0	..		61	0	..		94	6	6·4		89	38	42·7
	52	0	..		102	0	..		57	0	..		126	0	..
	94	0	..		43	0	..		124	0	..		56	9	16·1
A.III.	55	0	..	B.III.	53	0	..	C.III.	47	0	..	D.III.	93	3	3·2
	59	0	..		50	0	..		51	0	..		30	5	16·7
	64	0	..		89	0	..		54	0	..		129	13	10·1
	48	0	..		49	0	..		77	2	2·6		63	3	4·8
A.IV.	17	0	..	B.IV.	69	0	..	C.IV.	89	5	5·6	D.IV.	77	48	62·4
	50	0	..		70	0	..		114	0	..		63	32	50·8
	43	0	..		42	0	..		70	0	..		48	41	85·0
	38	0	..		44	0	..		94	0	..		35	23	65·7
A.V.	52	0	..	B.V.	62	0	..	C.V.	59	4	6·8	D.V.	99	38	38·4
	37	0	..		59	1	1·7		32	2	6·3		61	9	14·8
	29	0	..		39	0	..		42	1	2·4		66	15	22·7
	52	0	..		58	0	..		91	7	7·7		47	0	..
	1,051				1,328				1,307		Av. 2·6		1,361		Av. 33·2

TABLE VI. — SUMMARY OF RESULTS AT ARDMONA, 1932. SPRAYS APPLIED, 12.7.32. DATE EXAMINED, 5.10.32.

Plot.	Percentage Infestation.	Plot.	Percentage Infestation.
A.I.	0	C.I.	1·6
II.	0	II.	3·01
III.	0	III.	0·9
IV.	0	IV.	1·4
V.	0	V.	6·2
			Av. 2·6
B.I.	0	D.I.	46·1
II.	0	II.	21·8
III.	0	III.	7·6
IV.	0	IV.	64·5
V.	0·45	V.	22·7
	Av. 0·1		Av. 32·5

Plot.	Percentage Infestation.
Lime-sulphur	25·5
Controls	90·0

Details of the final figures are shown in Table V. and summarized in Table VI., which includes also the results from the lime-sulphur plots.

The egg-killing efficiency of the tar distillate wash is again outstanding, and the results confirm those obtained in the laboratory. In the ten plots sprayed with this wash the aphid was found only at two isolated places; one being a single infested lateral and the other a heavily-infested branch on a buffer tree—a branch which had obviously been missed when applying the spray. Compared with the control plots, the A and B plots showed a marked difference in general appearance (cf. Plates 11 and 12). The leaves of unsprayed trees were small, distorted, and abnormally light in colour, while those of the sprayed plots were larger and a deeper, more healthy green.

On all of the red oil and lime-sulphur plots infestation by the aphid was evident. Actually these plots could be readily distinguished from others after a brief inspection. The figures indicate that these materials did reduce the amount of infestation, even if it failed to prevent the hatching of

a proportion of the eggs. Unsprayed trees were heavily infested with the aphid, and at fruit harvest time it was found that the peach crop on them had been reduced considerably.

An important feature of the trial was that, although heavily-infested trees adjoined trees free from aphids, the latter remained free from the insect throughout the period of its activity on the peach. Thus is appears that the movement of the insects from tree to tree is not a common occurrence, and that re-infestation of trees does not take place from outside sources.

The degree of infestation on the different plots was closely related to the distribution of the eggs, as shown in Table VIa.

TABLE VIa.

Plot.	Number Eggs Per Lateral.	Percentage Infestation.	Plot.	Number Eggs Per Lateral.	Percentage Infestation.
C.I.	6·6	1·6	D.I.	7·5	46·1
C.II.	8·8	3·0	D.II.	2·7	21·8
C.III.	1·1	0·9	D.III.	0·9	7·6
C.IV.	4·4	1·4	D.IV.	6·9	64·5
C.V.	8·9	6·2	D.V.	2·7	22·7

TABLE VII.—RESULTS AT BURNLEY, 1932.
(Sprays Applied, 15.7.32. Examined for Results, 10.10.32.)

Plot.	Percentage Infestation.	Average Number Eggs Per Lateral.	Plot.	Percentage Infestation.	Average Number Eggs Per Lateral.
A.I.	0·9	51·2	C.I.	17·1	26·8
A.II.	0	23·4	C.II.	16·0	20·6
A.III.	0	23·2	C.III.	8·6	20·5
	Av. 0·3			Av.13·9	
B.I.	25·3	41·2	D.I.	50·7	10·5
B.II.	14·5	8·6	D.II.	37·6	9·3
B.III.	18·9	27·6			
B.IV.	22·9	23·8		Av.44·2	
	Av.20·4				

Confirmatory tests were made at Burnley during the same winter (1932). The arrangement of the Burnley plots and distribution of eggs on them are shown in diagram 2. The orchard is small, and therefore eggs were more evenly distributed through it than at Ardmona, and were much more numerous (cf. diagrams 1 and 2). This resulted in a heavier infestation than occurred in the Ardmona plots. Treatments were—

A—Tar distillate (Wisbech wash) .. .. 3.33 per cent.
B—Lime-sulphur .. 10 „
C—Red oil .. .. 5 „
D—Untreated.

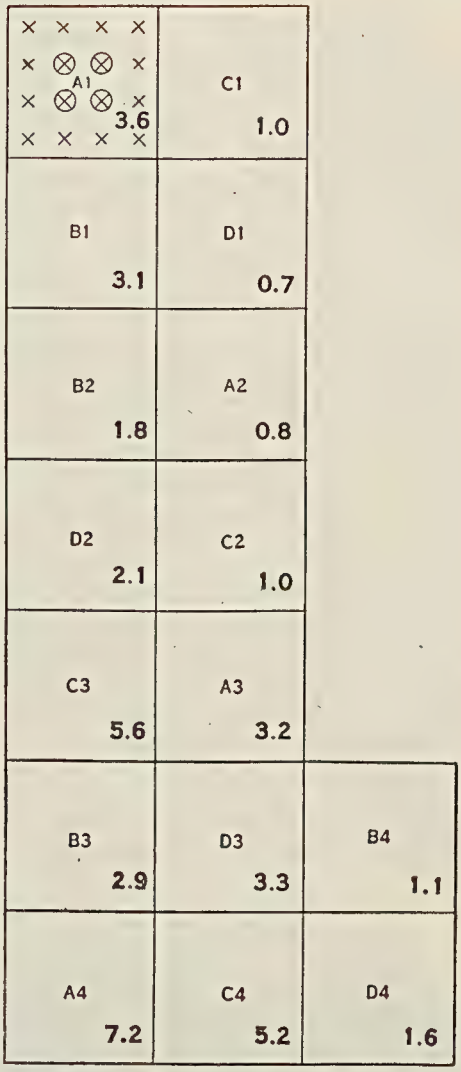


Diagram 3.—Arrangement of plots and distribution of eggs at Ardmona 1933.

The results are summarized in Table 7. Plots sprayed with tar distillate again were noticeably free from aphid infestation, while lime-sulphur and red oil were not completely effective. In view of the high toxicity of lime-sulphur to aphid eggs as shown by laboratory tests, a better result might have been expected in the field.

Results of 1933 Field Trials.

The spray materials tested in the 1933 field experiments were the same (excluding red oil) as those used in the 1933 laboratory tests. Tar distillate A was tested at strengths of 2.5 per cent., 2 per cent., and 1.4 per cent. (1 in 70), and on the same block of trees at Ardmona used in the previous year's trials. Fewer plots were used since the numbers of eggs on trees eight or nine rows from the headlands were very small. Diagram 3 shows how the plots were randomized and the distribution of eggs on them. The numbers of eggs were much smaller than in 1932.

Results obtained from these materials are shown in Table VIII. Tar distillate A did not give complete control at the 2.5 per cent. strength, although it reduced the infestation to negligible proportions. In this case it was also very effective at the 1.4 per cent. strength when compared with the controls, but it must be borne in mind that the infestation of eggs was light, and under a higher infestation such a spray material would be proportionately less effective. This applies also to the other sprays used.

Table VIII.—Field Results at Ardmona, 1933. Sprays Applied, 18.7.33. Plots Examined for Results, 11.10.33.

Spray Material and Concentration.	Number Laterals Examined.	Number Laterals Injured.	Percentage Laterals Injured.	Average Number Eggs per Lateral.
Tar Distillate A., 2·5 per cent. ..	1,616	8	0·5	3·7
Tar Distillate A., 2 per cent. ..	1,475	28	1·9	2·2
Tar Distillate A., 1·4 per cent. ..	1,570	50	3·2	3·2
Control	1,876	657	35·0	1·9
Tar Distillate B., 3·3 per cent. ..	713 (1,155)	0 (21)	0 (1·8)	4·6
Tar Distillate B., 2 per cent. ..	753 (1,134)	0 (46)	0 (4·1)	1·2
Test Emulsion I., 3·3 per cent. ..	507 (864)	0 (55)	0 (6·4)	2·4
Test Emulsion I., 2·5 per cent. ..	336 (1,001)	4 (112)	1·2 (11·2)	0·4
Control	756 (1,223)	129 (681)	14·2 (56·5)	1·4
Test Emulsion II., 3·3 per cent. ..	687	2	0·3	1·1
Test Emulsion II., 2 per cent. ..	945	21	2·2	0·8
Test Emulsion III., 3·3 per cent. ..	901	20	2·2	2·4
Control	973	95	9·8	1·2

From Table VIII. it is clear that the results obtained from the other sprays are not conclusive, since the numbers of eggs on the laterals were small and the infestation on the control plots (with one exception) was light. Test emulsions II. and III. showed signs that they would be ineffective under conditions in which a heavier infestation of eggs occurred. The plots in which tar distillate B and test emulsion I. were tested were examined on 12th October, 1933, and again on 15th November, 1933. The results from the latter examination are shown in brackets in Table VIII., and they indicate that aphid infestation might become fairly heavy, although the number of eggs present was very low.

At Burnley, in 1933, these tar distillate sprays were tested side by side at a common strength of 2.5 per cent., and under conditions of heavier egg infestation. The tests were made in triplicate, and the results are summarized in Table IX. The figures are of the order which might have been expected from the results of the laboratory tests (cf. Table V.). The materials were not as effective as was desirable, and the figures indicate that a strength of 2.5 per cent. was too weak for the test emulsions, while distillates A and B were fairly satisfactory.

Table IX. — Summary of Results at Burnley, 1933. Sprays Applied, 4.7.33. Date Examined, 17.10.33.

Spray Material.	Number Laterals Examined.	Number Laterals Infested.	Percentage Infested.	Average Number Eggs Per Lateral.
Tar Distillate A., 2·5 per cent. ..	1,191	70	5·9	9·8
Tar Distillate B., 2·5 per cent. ..	1,602	148	9·2	13·8
Test Emulsion I., 2·5 per cent. ..	1,251	227	18·1	18·4
Test Emulsion II., 2·5 per cent. ..	1,271	467	36·9	16·8
Controls ..	1,502	745	49·6	18·6

Conclusions from Laboratory and Field Results.

Considering the results as a whole, their most outstanding feature is the high egg-killing efficiency of the Long Ashton tar distillate, and the consequent high degree of control that it exercises over the aphid. According to the laboratory tests already described, and field observations made in 1928, lime-sulphur also is highly toxic to the eggs. However, the inconsistency between laboratory and field results from this material set out in this paper indicates that further tests are

necessary; and such tests are desirable, since lime-sulphur might be used as a dual-purpose spray against *M. persicae* and various fungus diseases, e.g., peach leaf curl (*Exoascus deformans*). Red oil, when used against the egg stage of the aphid, does not provide a reliable means of control.

The consistency of field results over a period of four years proves that in Victoria the aphid can be controlled solely with measures directed against the egg stage.

General Discussion.

Under the environmental conditions imposed by the climate of Victoria the activities of *Myzus persicae* occur at definite, cyclical intervals. This fact is particularly evidenced in the regular occurrence in autumn of the amphigonous generation in which both sexes are concerned in the production of the fertile egg. Under semi-tropical conditions reproduction in the same insect is anholocyclic (i.e., sexual reproduction does not occur), and the aphid is polyphagous in habit. In Victoria, however, the insect is definitely holocyclic, but the sexual phase (which occurs in autumn) is succeeded by a number of asexual phases in which reproduction is solely by parthenogenesis. Feeding, in one part of the year, is restricted to a single, woody host (the peach), and in the remaining portion of the year it occurs on a wide range of unrelated plant species which are herbaceous; in other words, the aphid exhibits seasonal oligophagy (Wardle).

From the economic aspect, the regular occurrence of the egg-laying stage is important, since it offers a means of controlling outbreaks of the insect in peach orchards. The advantages of attacking the insect at this stage of its life-cycle are many. The aphid is in a single stationary stage of existence on the primary host, and is confined to a limited space. Therefore, by means of a thorough application of an efficient egg-killing wash early in winter, a very high proportion of the eggs can be destroyed. From the practical point of view, spray applications can be made at a time of the year when orchard operations are not numerous, and, moreover, dormant trees require much smaller quantities of spray material to cover them than do those carrying foliage. A single application of a suitable spray material is sufficient to ensure the suppression of the insect for the remainder of the reason.

From the investigations carried out at Long Ashton(7) it is evident that only certain fractions of coal tar distillate are suitable as ovicides against aphid eggs. It has been shown that the most effective portions of the total distillate comprise the neutral constituents with a boiling point between 280 and 360 deg. C. These constituents are referred to as the "high neutrals." "Tar acids," basic materials, and low-boiling point materials must be removed, e.g., by distillation. The "high neutrals" and a suitable method of emulsification give to the distillate the properties of forming over eggs a uniform, varnish-like film which cannot be washed off by rain, and from which the toxic properties will not evaporate. In the emulsification of Wisbech winter wash a special sulphonated oil ("Agral W.B.") has been used, and this oil apparently plays an important part in its

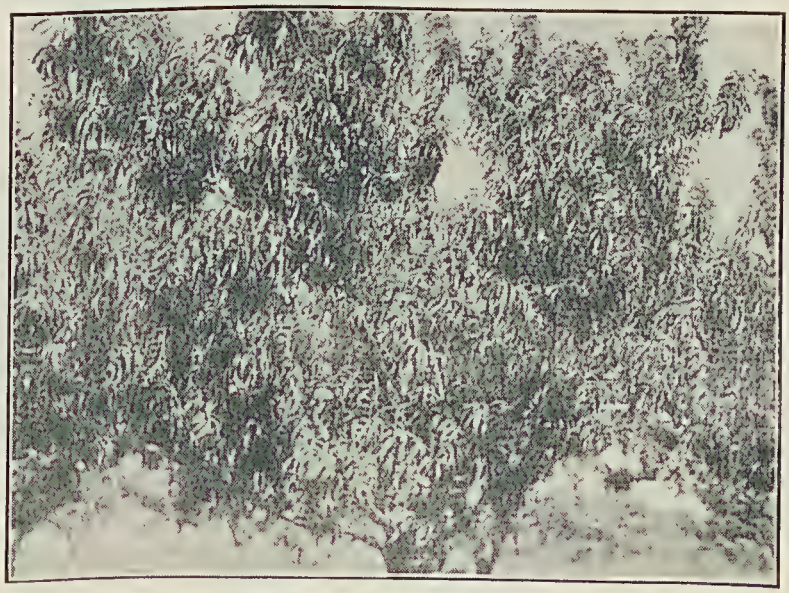


Plate 11.—Tree sprayed with tar distillate winter wash at Ardmona.

effect on the adhesive and spreading properties. The presence of "tar acids" actually lowers toxicity, while low boiling point materials tend to increase volatility. The poor results obtained from test emulsions of tar distillate made from local material were doubtlessly due to the fact that these materials had not been completely separated from the total distillate.

The most serious disadvantage of the use of tar distillate washes is their effect on the operator. They produce inflammation of the skin with resultant swelling, and ultimately the skin peals off. It is necessary to adopt some precautionary measure such as the use of a suitable mask when applying the material.

These washes are essentially dormant-period sprays, and their use should not be attempted on foliage as severe injury will result.

Plate 12.—Unsprayed tree at Ardmona, showing defoliation caused by Green Peach Aphid.

Summary.

1. *Myzus persicae,* Sulz. is the principal insect pest of the peach in Victoria. Severe, general outbreaks occur spasmodically, causing serious reductions in peach and nectarine crops. Smaller, local outbreaks occur almost every year in peach-growing districts, necessitating the constant use of control measures. It appears that infestation of peach trees takes place solely from winter eggs.

2. Field observations on the life-history show that the aphid is a normal, migrating species, in winter existing on the peach in the egg stage, and over-summering on a wide range of herbaceous plants. The egg stage is short, and in the four winters over which observations extend the eggs commenced to hatch before the minimum winter temperatures had been reached.

3. In the breeding experiments in the insectary, observations have been made on the number of days between successive ecdyses, total developmental periods, reproduction, oviposition, and longevity of the spring and autumn forms which occur on peach trees. The breeding was carried out under natural conditions, and records were kept of temperature and humidity during the period of the experiments.

4. Detailed descriptions of the principal forms of the insect are given, including descriptions of the various instars.

5. An examination of meteorological records of the Goulburn Valley for the years 1927-1932 (which included two years in which outbreaks occurred) indicates that there is no prospect of being able to forecast a general outbreak. Earlier records require to be examined to extend the range of the observations.

6. A list is given of several species of Hymenoptera and various predators which were noticed to be associated with *Myzus persicae.* Most of the hymenopterous forms have not previously been reported as attacking the aphid in Victoria.

7. Laboratory tests with various ovicidal spray materials show that a tar distillate wash, prepared according to a formula devised at Long Ashton, England, is most toxic to the eggs of *M. persicae.* Lime-sulphur also is highly toxic, and red oil is least effective.

8. Field trials with these materials show that a single application of an efficient ovicide made early in July, will give satisfactory control of the insect, and trees will not become re-infested in the following spring.

MORE YARDS OF FURROW PER GALLON

More yards of furrow per gallon and less interruption to the work through mechanical breakdowns--that is the happy experience of tractor farmers who always demand Cross Power Kerosene and Shell Motor Oil.

Products of The Shell Company Ltd.

CROSS
POWER
KEROSENE

CK341

Cleanliness in Concrete Construction for Housing Pedigree Stock

"ARC"
BRAND
GEELONG CEMENT

For durable constructions that do not need repairs or maintenance.

Write to us for Special Pamphlets

AUSTRALIAN CEMENT LIMITED
Tel. Central 1773
422 COLLINS STREET, MELBOURNE, C.1

EMPIRE TRADE IS THE EMPIRE'S LIFE BLOOD . . .

TRACTOR OWNERS!

THE biggest buyer of Australia's produce is Britain . . . Then be British —buy British! . . . And here's a British Power Kerosene that gives you the newest development in modern tractor fuels—*plus* the satisfaction that you're helping Empire trade.

C·O·R

new process

POWER KEROSENE

The Commonwealth Oil Refineries Ltd. (Commonwealth Government & Anglo-Persian Oil Co. Ltd.)
Poolman Street, Port Melbourne, S.C.7. Phone: M 3261. Refinery: Laverton, Victoria

PK6

TEXACO assures longer tractor life

Texaco Tractor Oil in your engine means a smoother, more powerful and cleaner engine. A hot, gruelling day in the field—with engine running at terrific heat—but Texaco never lets you down—it has the body to withstand any temperature.

A sudden cold snap, and Texaco flows freely and lubricates effectively.

Prolong the life of your tractor—standardise on Texaco Tractor Oil to-day, and reduce your fuel and repair bills.

TEXACO

TRACTOR OIL

130,190,013 and 6,244,346

Figures Talk, Don't They!

YOU will realize how these talk when we tell you that the first represent the number of passengers and the second the total tonnage in freight that your railways carried last year.

WE print those totals to let you imagine what would happen if your railways ceased to function.

ACTUALLY, you cannot visualize the tragedy of being without your trains. Their service is woven into all phases of the life of the community. They are noted for a superior comfort, dependability, safety—a safety brought about by the care of the rolling stock and the permanent way, the surety of the signalling, and the major attention to duty of men who have to be periodically examined to ensure that they are fit for their jobs.

THINK that over and you will discover another irresistible reason why you should always

TRAVEL BY TRAIN—AND RELAX!

OTHERS SEE IT!

WASTING money is a fault more obvious to others than to the man himself. He does not realize how easily a bank balance could be built up with what he fritters away.

Start saving! Depositors of the smallest amounts receive equal attention with all other depositors at the

State Savings Bank of Victoria

Head Office:
Elizabeth St., Melbourne

ALEX. COOCH,
General Manager

"WARATAH" Brand for the Man on the Land

"Waratah" Products Supply Every Need

"WARATAH" WIRE NETTING. Made in All Sizes, Gauges, and Widths. For all classes of Stock, Rabbits, Poultry, &c. Heavily Galvanized. Rolls out Straight and Flat.

"WARATAH" FENCING WIRE. Australian Made to suit the varied climatic conditions. Stronger. Once strained is always tight. Black or Galvanized.

"WARATAH" BARBED WIRE. In All Patterns, Special Long Distance, 14-g. Waukegan Pattern, 930 yards per cwt.

"WARATAH" FENCE, HINGED JOINT. The latest development in Woven Wire Field Fencing. Costs no more than single wires and droppers, and saves time and labour in erection. Made in 5-chain rolls. Special Heavy, Standard, and High Tensile Qualities.

"WARATAH B.H.P." STAR STEEL FENCE POSTS. No post holes to dig. No boring of posts. No wedges or ties. No posts to ram. No White Ants. No insurance. No "dummying." Are ten times faster to erect. One man can do the work of three. Mortgages or advances more easily got. Lengths, 4 ft. 6 in. and upwards. Packed in bundles of 10. **Price, 1/- each,** F.O.R., Melb., for posts up to and including 5 ft. 6 in. Any Quantity. Any Punchings.

Made from B.H.P. STEEL by **RYLANDS BROS. (Aust.) Ltd., Newcastle, N.S.W.** Sold by all leading Storekeepers

Head Office: 422 LITTLE COLLINS ST., MELBOURNE. (Phone C.7870)

Department of Agriculture

POULTRY for SETTLERS

ORDERS FOR COCKERELS for delivery from March may now be booked from the Poultry Pens at the Central Research Farm, Werribee. Settings of Eggs can be supplied in season.

1st July to 1st October orders are booked in rotation.

WHITE LEGHORNS

No. 1—Pure Cosh World's Record Strain.

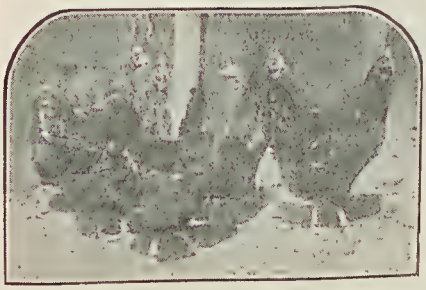
No. 2—From Single Tested Hens with scores of 260 to 285 eggs, Single Mated to Cocks bred from Hens with scores of 275 to 301 eggs.

UTILITY BLACK ORPINGTONS

Founded on Christie and Cullen Strains

No. 1—From Single Tested Hens with scores of 256 to 284 mated to Cockerels bred from Hens with scores of 272 to 313 eggs.

No. 2.—From Hens bred from above mated to Cockerels bred from Single Matings.



For Prices and Particulars apply to

The Manager, Research Farm, Werribee

LYSAGHT'S

100 % Australian Made 100 %

Fencing and Other Wires, Wire Netting, Zinc Oxide

Our Netting and Other Products are known through the Commonwealth as of the highest standard. Obtainable from all leading Merchants and Storekeepers.

LYSAGHTS AUSTRALIAN MADE WIRE NETTING SYDNEY N.S.W. PROOF REG. TRADE MARK

Look for Our Marker in Every Roll of Netting

Manufactured by

Lysaght Bros. & Co. Ltd.

Head Office : 17-19 Bridge Street, Sydney
Works : Parramatta River

Agents for Victoria : Gibbs, Bright & Co., 34 Queen Street, Melbourne

THE VICTORIA STUD OF FRIESIAN CATTLE

State Research Farm, Werribee.

FOR SALE.

BULL CALVES

All are progeny of tuberculin-tested stock and of cows tested in the Standard Herd Test. All are eligible for Registration in the Friesian Herd Book of Australia

AVERAGE PRODUCTION OF FRIESIAN HERD SINCE 1927-28

Year.	Number of Cows in Test.	Milk.	Test.	Butter Fat.	Butter Fat lb. with allowances for Heifers.
		lb.	%	lb.	
1927-28	14	9,177	3·67	336·85	399·21
1928-29	10	13,644	3·41	465·24	512·74
1929-30	10	11,831	3·40	399·45	456·95
1930-31	13	12,763	3·43	431·92	500·01
1931-32	10	10,116	3·69	369·00	417·00*
1932-33	10	10,512	3·65	378·53	434·53*
1933-34†	14	11,848	3·62	426·42	504·19*
Average	81	11,375	3·54	399·75	463·26

* In 1931-32 the allowances for heifers were reduced. Under the old scale these averages would have been 429·00, 448·53, and 520·65 lb. respectively.
† Records of cows that have completed the 1933-34 test to date.

The prices are based on the butter-fat production of the dam at the rate of 1/- per lb., except in the case of progeny of heifers without completed test, the price then being 10 guineas.

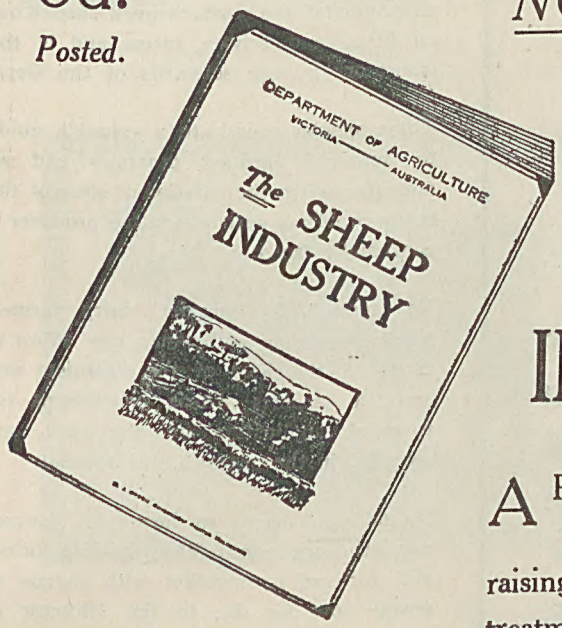
Inspection cordially invited. For further particulars apply to—

THE DIRECTOR OF AGRICULTURE, MELBOURNE, C.2; OR THE MANAGER, STATE RESEARCH FARM, WERRIBEE

DEPARTMENT OF AGRICULTURE, VICTORIA

Price
8d.
Posted.

A New Publication
NOW ON SALE



THE SHEEP INDUSTRY

A PROFUSELY illustrated publication dealing with Sheep-raising, Sheep Diseases and their treatment.

METHODS of countering the attack of the sheep blowfly are outlined in detail. Other chapters deal with the selection of ewes and rams, classing the clip, baling and pressing wool, and the raising of fat lambs. Plans and specifications for the construction of a sheep-dip, shearing sheds, drafting yards, self-feeders, and a home-made wool press are included.

The publication contains 80 pages of reading matter and many photographs.

Obtainable from the DIRECTOR, Department of Agriculture, Melbourne, C.2.

The Journal of Agriculture

A VALUABLE Guide to improved farming practices and an essential aid to the solution of the many problems which confront the primary producer.

THE Journal of Agriculture contains interesting and informative articles written by expert officers of the Dept. of Agriculture and dealing with all phases of primary production.

The Journal records the results of the latest experimental and research work carried out on State and private farms and in the laboratory by the scientists of the Dept.

These articles constitute a valuable guide to improved farming practices and an essential aid to the solution of some of the many problems with which the producer is continually faced.

No agriculturist, grazier, dairy farmer, horticulturist, or poultryman can afford to disregard the help of the scientists and practical experts whose conclusions for practical application on the farm are recorded in the pages of this Journal.

Should you desire to have the Journal regularly each month, fill in the form below and forward it, together with cheque or postal note for 3s., to the Director of Agriculture, Melbourne.

The Director of Agriculture, Melbourne.

Please forward the Journal of Agriculture to me monthly as published, beginning with the issue for the month of.....

I enclose cheque / postal note *for three shillings to cover my subscription for one year.*

(Name).....

(Postal Address).....

.....

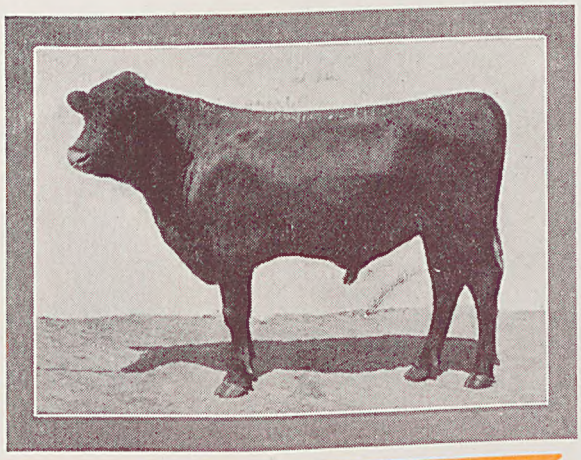
By Authority: H. J. GREEN, Government Printer, Melbourne.

THE DEPARTMENT OF AGRICULTURE

FOR SALE

RED POLL BULL CALVES

The progeny of tuberculin-tested stock and cows tested in the Standard Herd Test. All are eligible for registration in the Red Poll Herd Book of Australia.



New Herd Sire:

WOODBURN PETER PAN

Imp. in utero. (AA Vol. 7)
Born July 20th, 1932.

Sire : Peadowns Pierrot 15076.

Dam : Marsden Mindful 39913. Imp. (AA Vol. 7)

(The accompanying photograph of Woodburn Peter Pan was taken at 17 months old.)

Herd Sire:

DOMINION BRIGHT BELGIAN

(1195A) [Imp. from N.Z. (A299 N.Z.)]

Sire : Dominion Brussells (1196A). (A113 N.Z.)

Dam: Dominion Bright Eyes (3112B). (B352 N.Z.)

Inspection Cordially Invited

For Further Particulars apply—

THE DIRECTOR OF AGRICULTURE, MELBOURNE, C.1,
OR THE MANAGER, STATE RESEARCH FARM, WERRIBEE

RAISIN BREAD

For the . . Children's Lunches

For the . . Children's Lunches

Arrange with your baker to deliver a loaf of this delicious bread daily.

Send for The New Sunshine Cookery Book obtainable FREE from the

VICTORIAN DRIED FRUITS BOARD

623 Collins St., Melbourne, C.1 Tel. C. 9216

The Postage on this Coupon, if forwarded to the Victorian Dried Fruits Board, 623 Collins St., Melb., in an unsealed envelope, is **1d**

Please send me a FREE Cookery Book

Name (Mrs. or Miss) .....
(Block Letters)

Address .....

.....

A.J., April, 1934

SP 630.5 V645